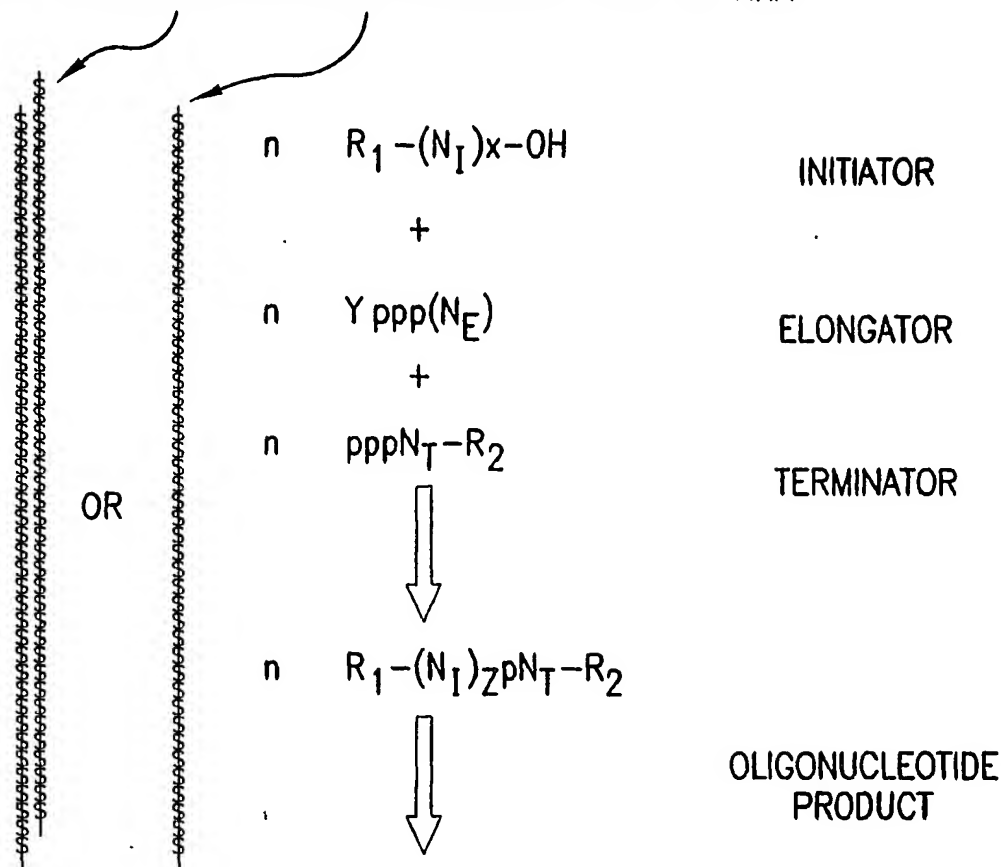


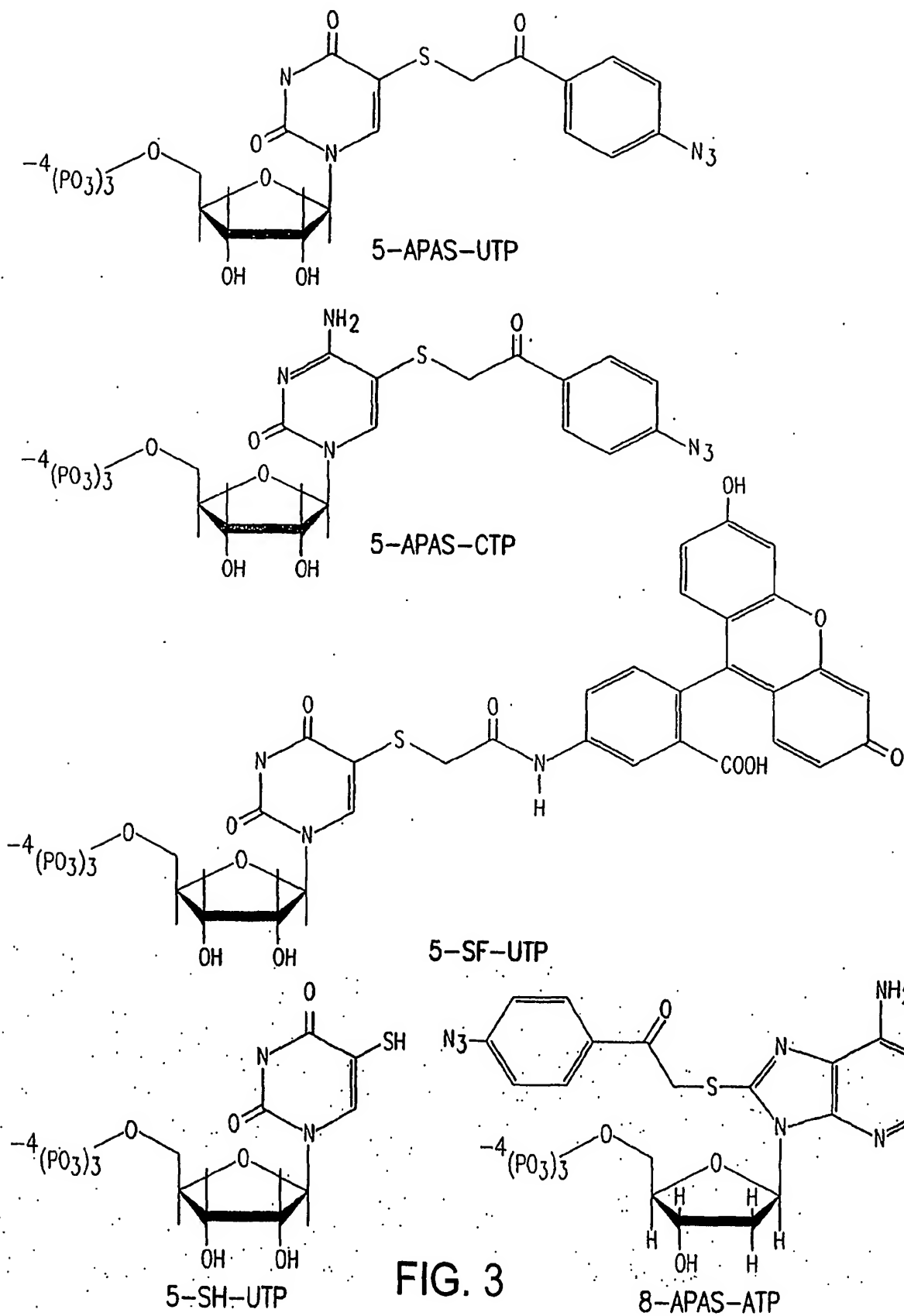
FIG.1

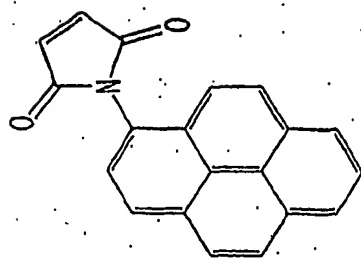
DOUBLE STRANDED OR SINGLE STRANDED DNA OR RNA



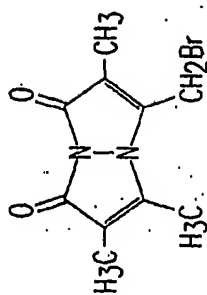
MULTIPLE SIGNALS

FIG.2

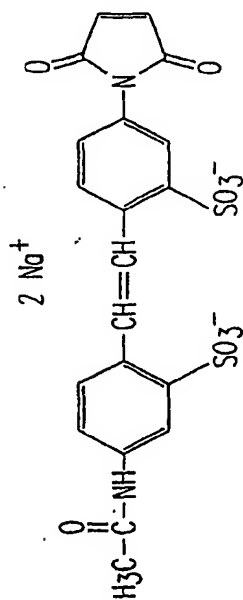




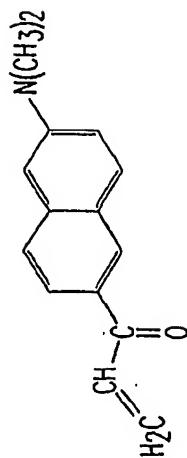
PYRENE



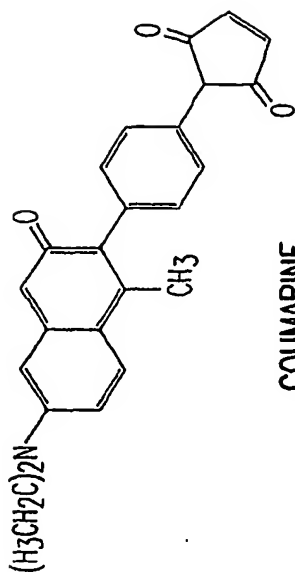
BIMANE



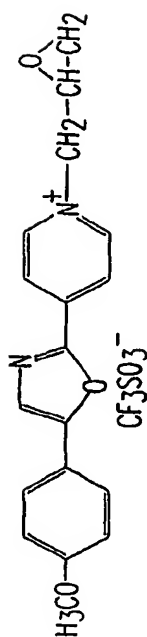
STILBENE



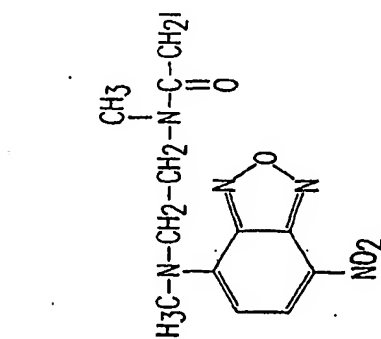
NAPHTHALENE



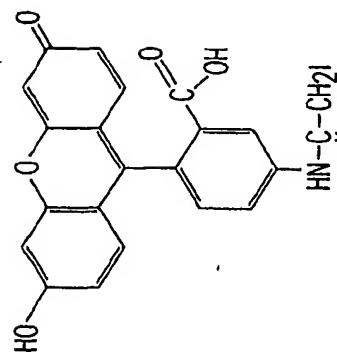
CUMARINE



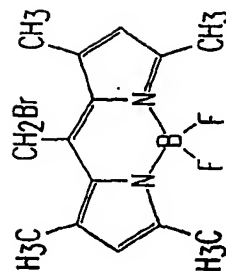
PYRIDYLOXAZOLE



NBD



FLUORESCEN



BODIPY™

FIG. 4

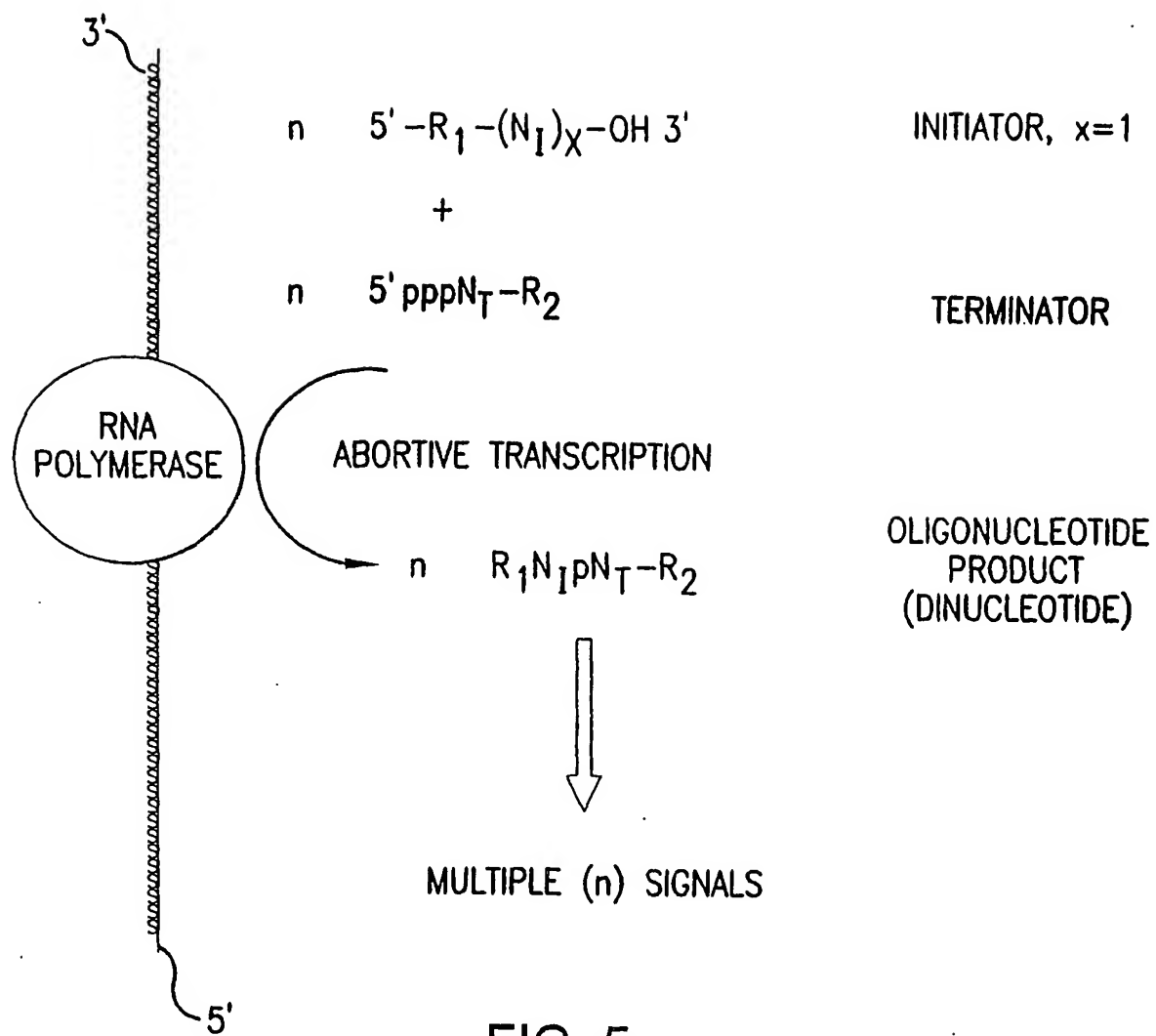


FIG. 5

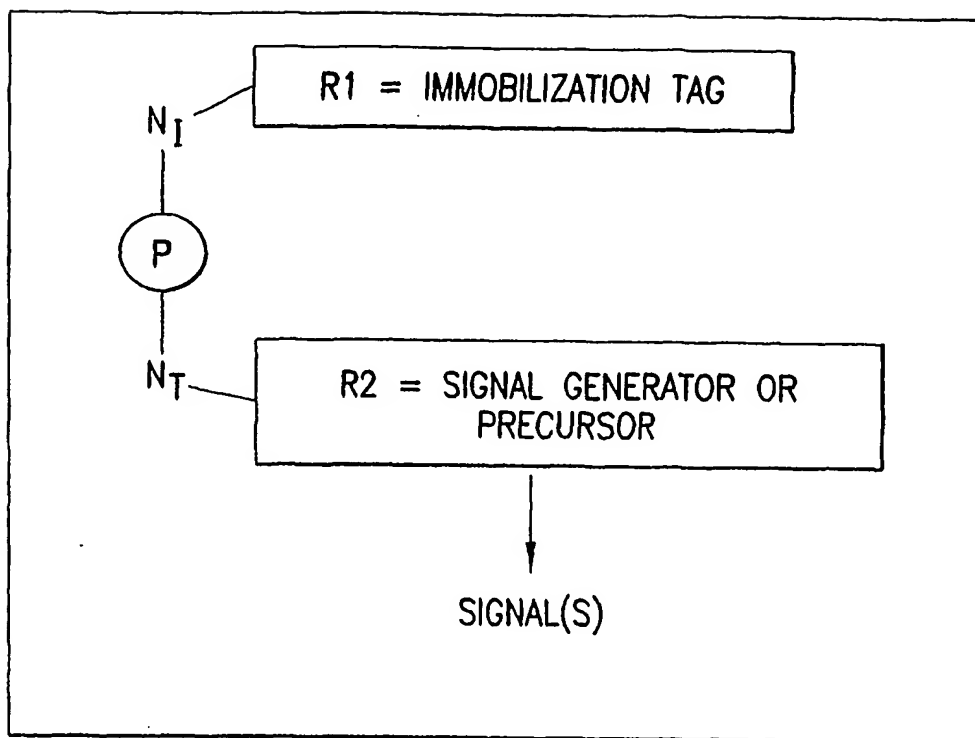


FIG. 6

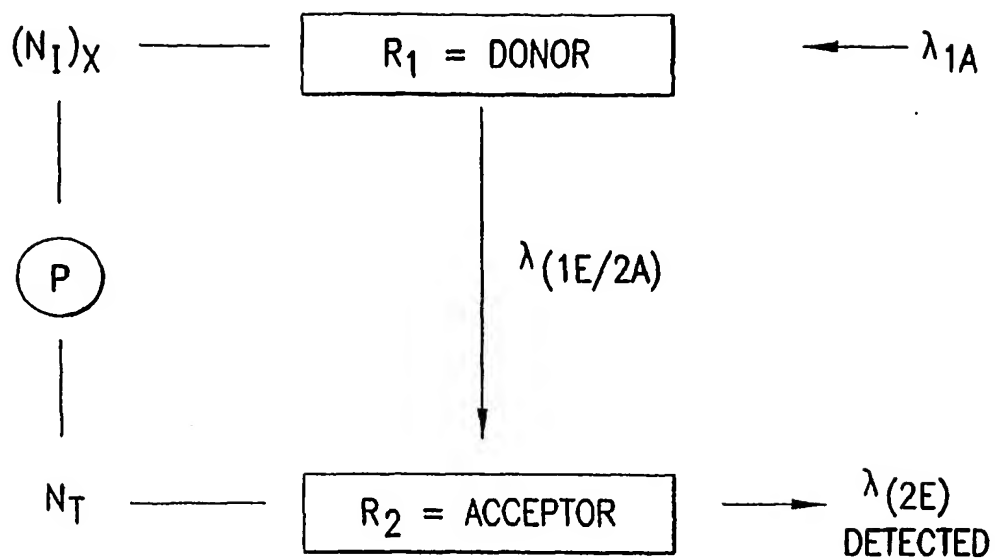
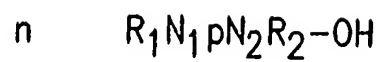
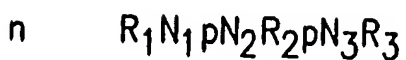
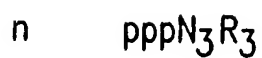


FIG. 7



+



WHERE N_3 IS A TERMINATOR

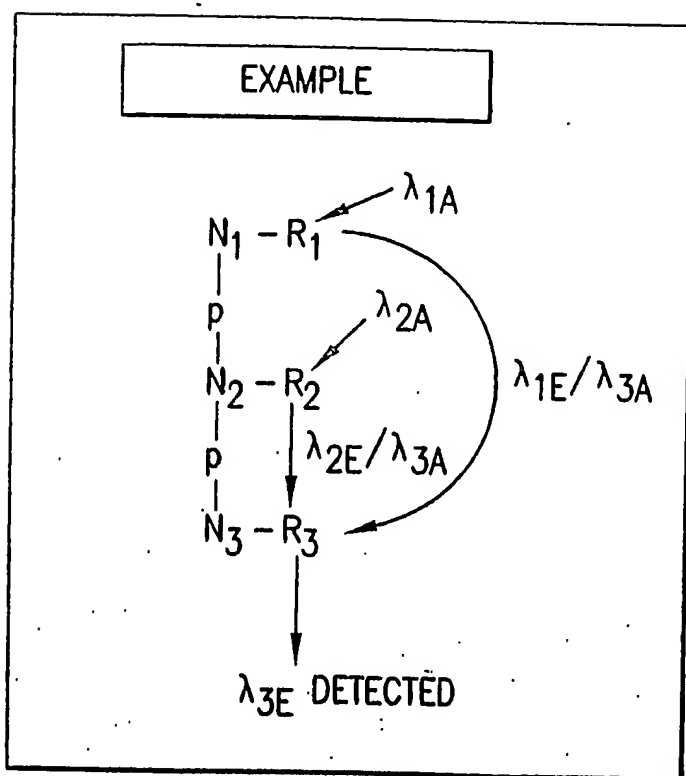


FIG. 8

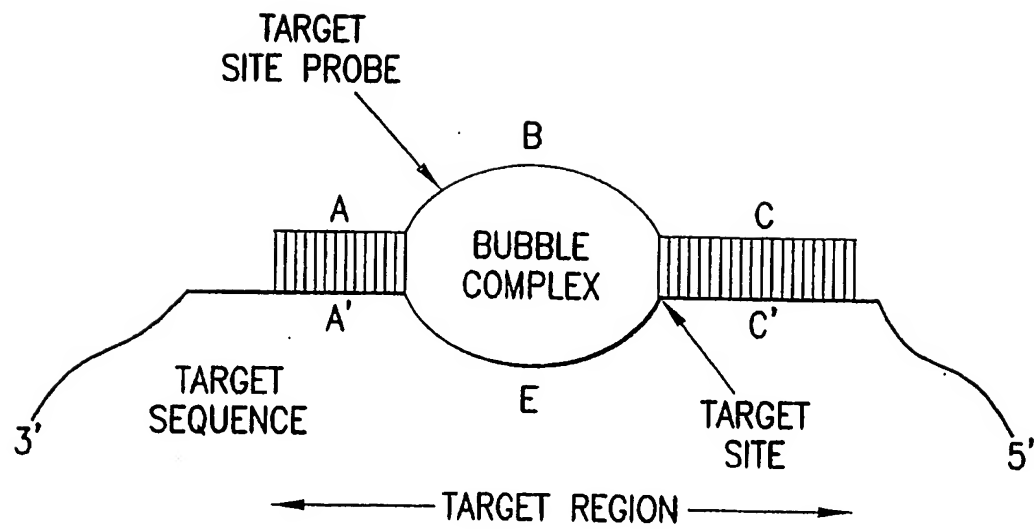


FIG. 9

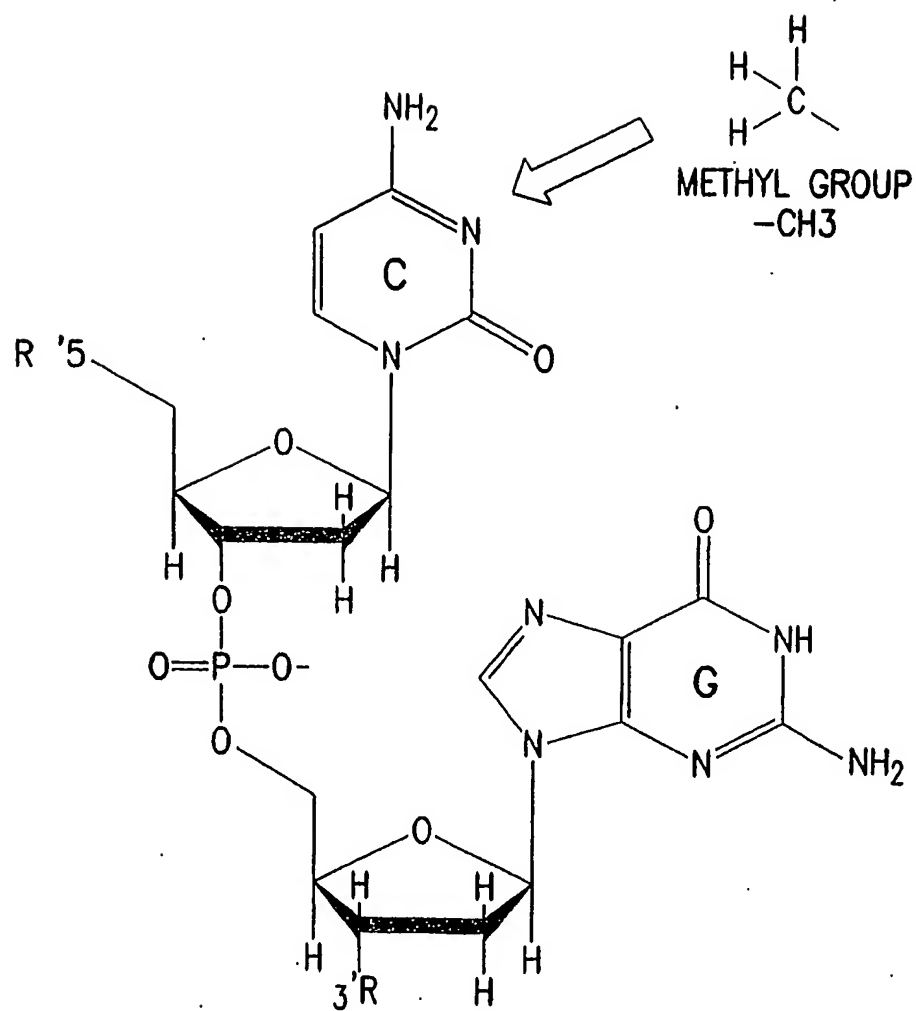


FIG. 10

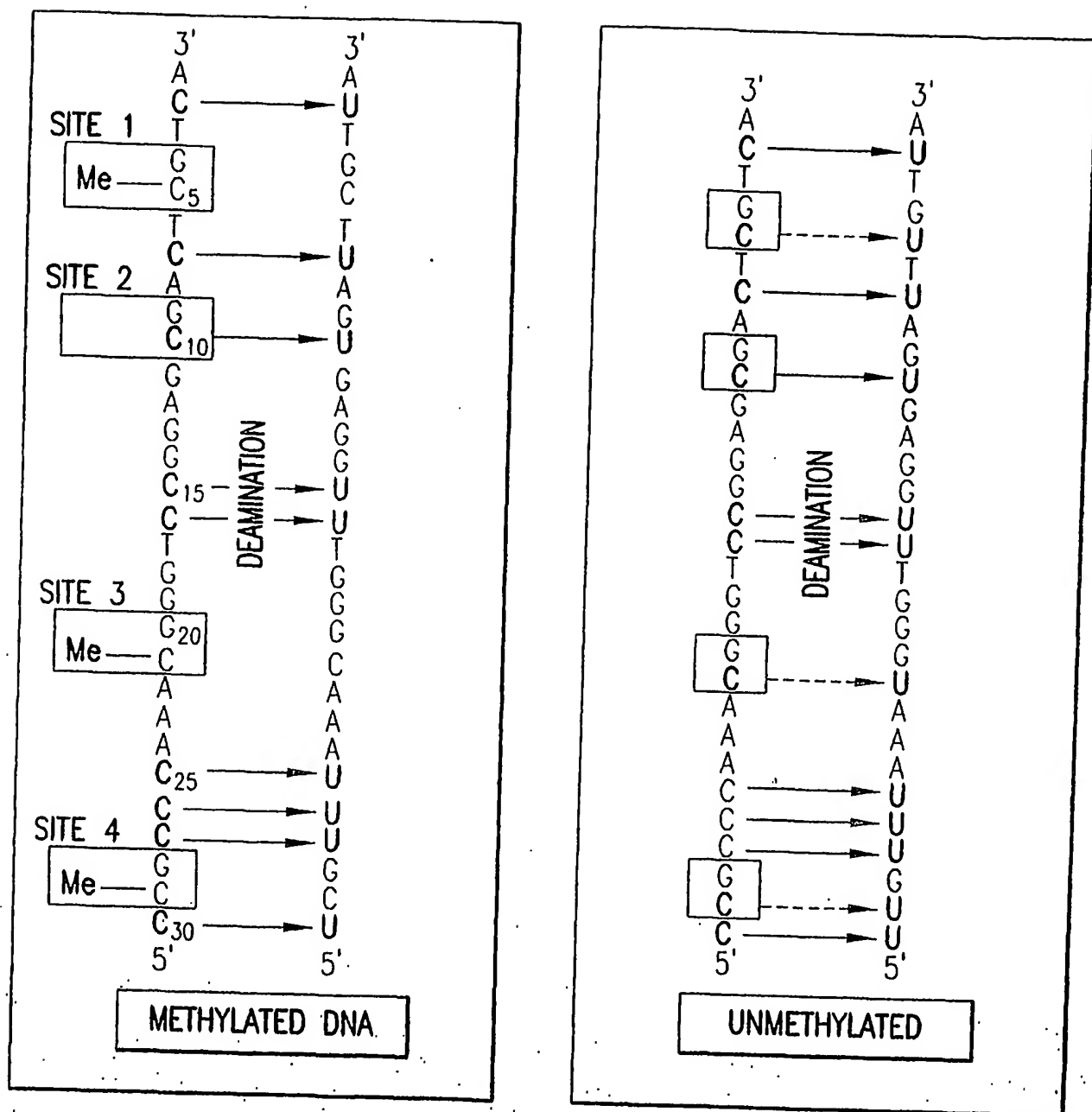


FIG. 11

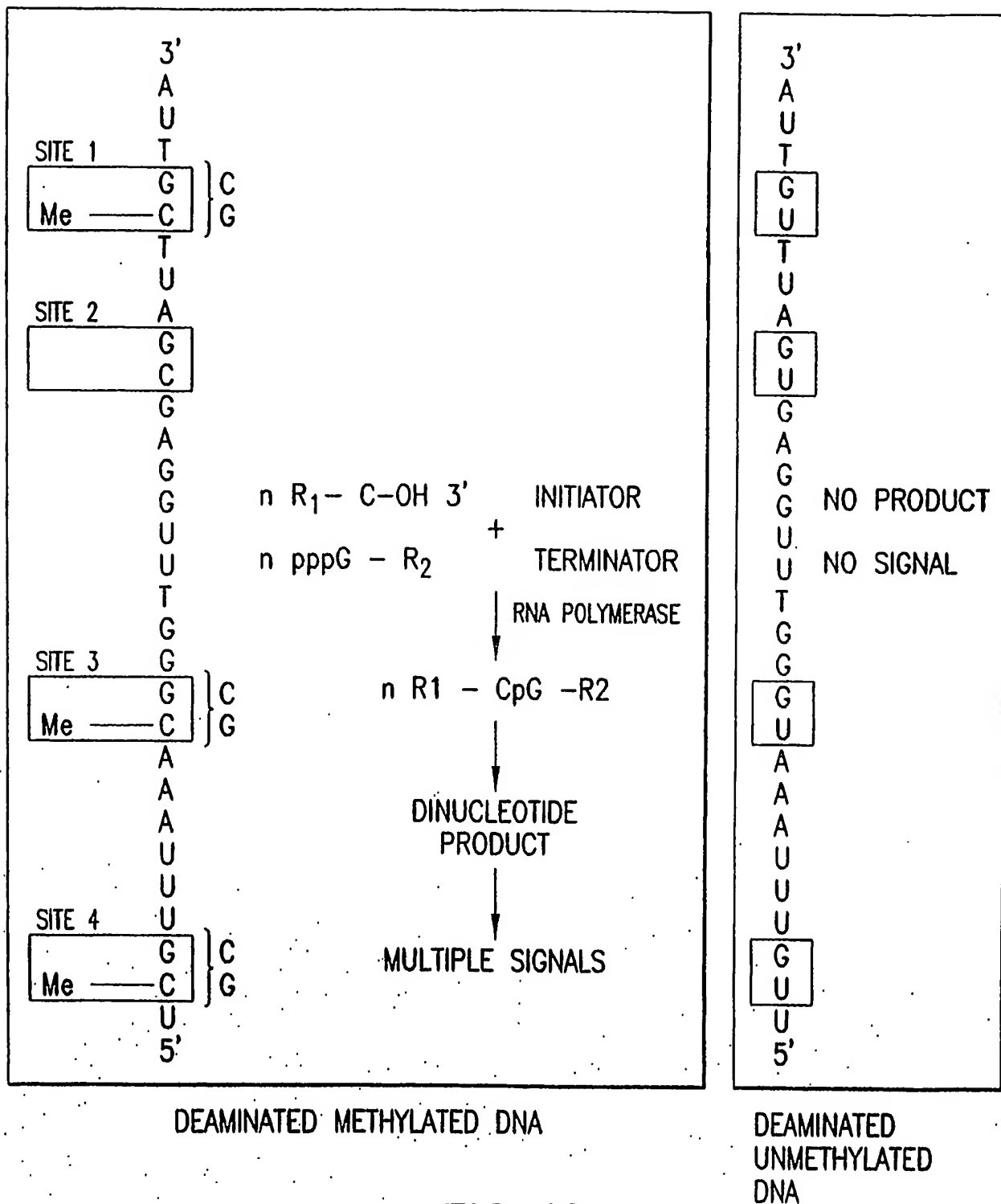


FIG. 12

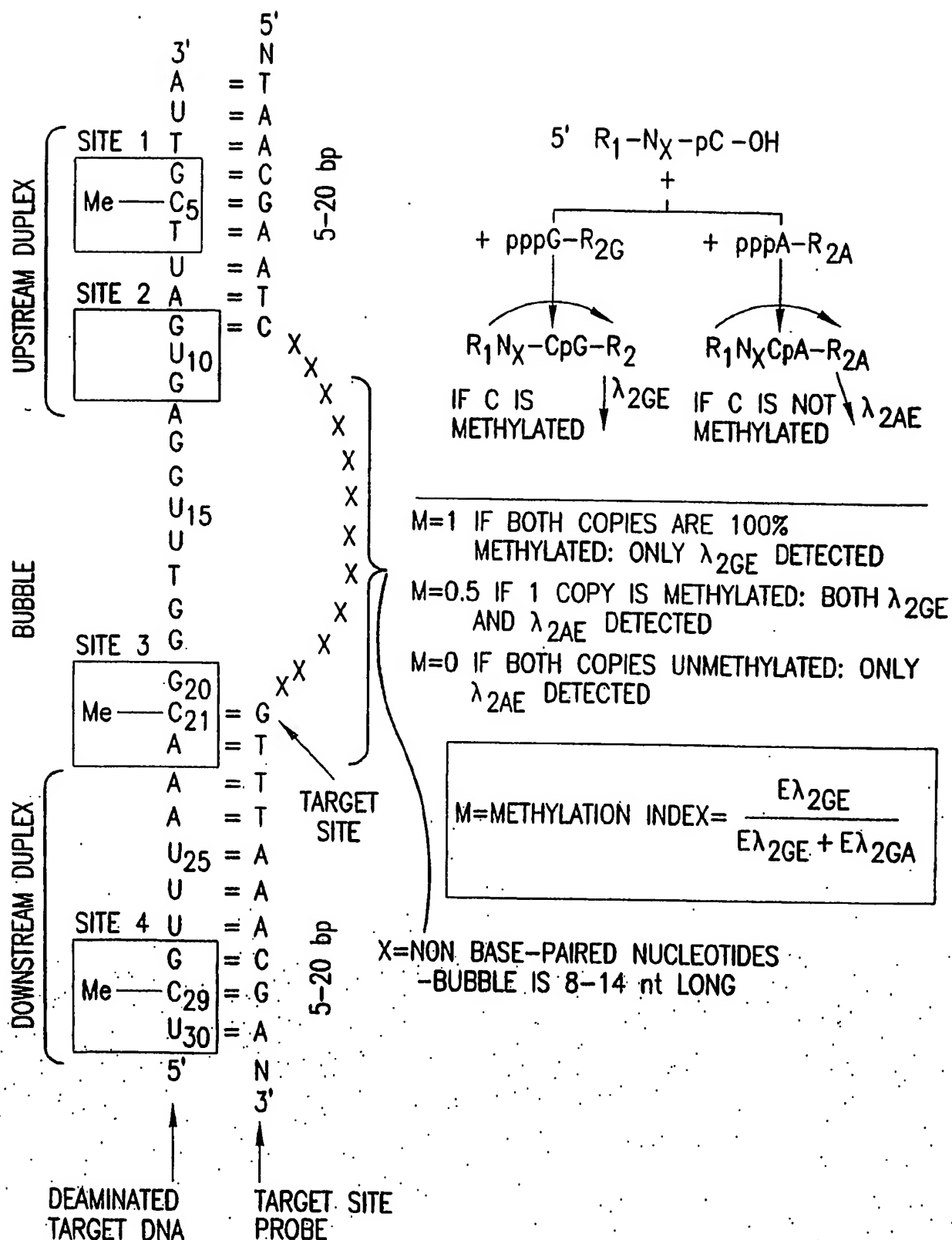


FIG. 13

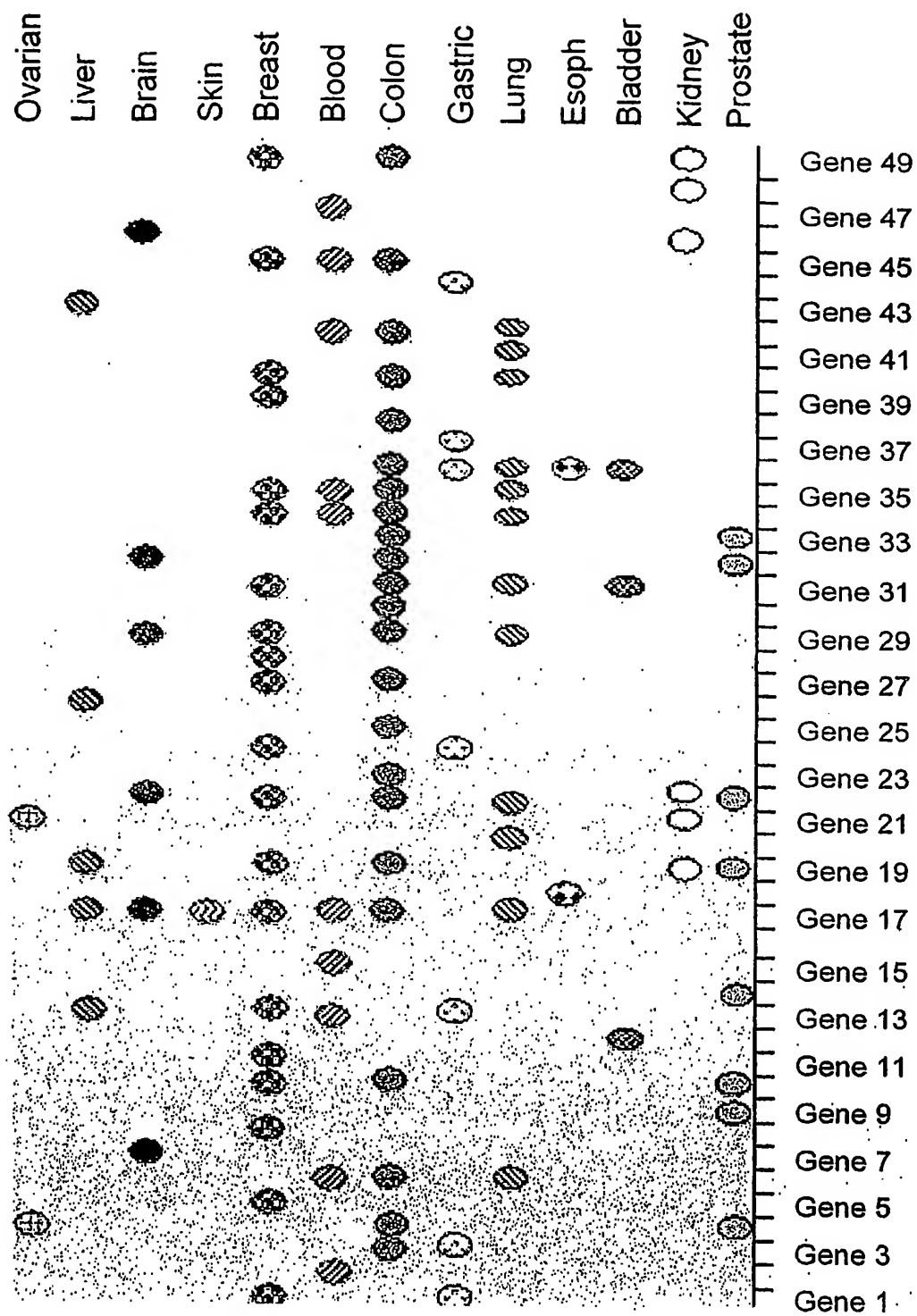
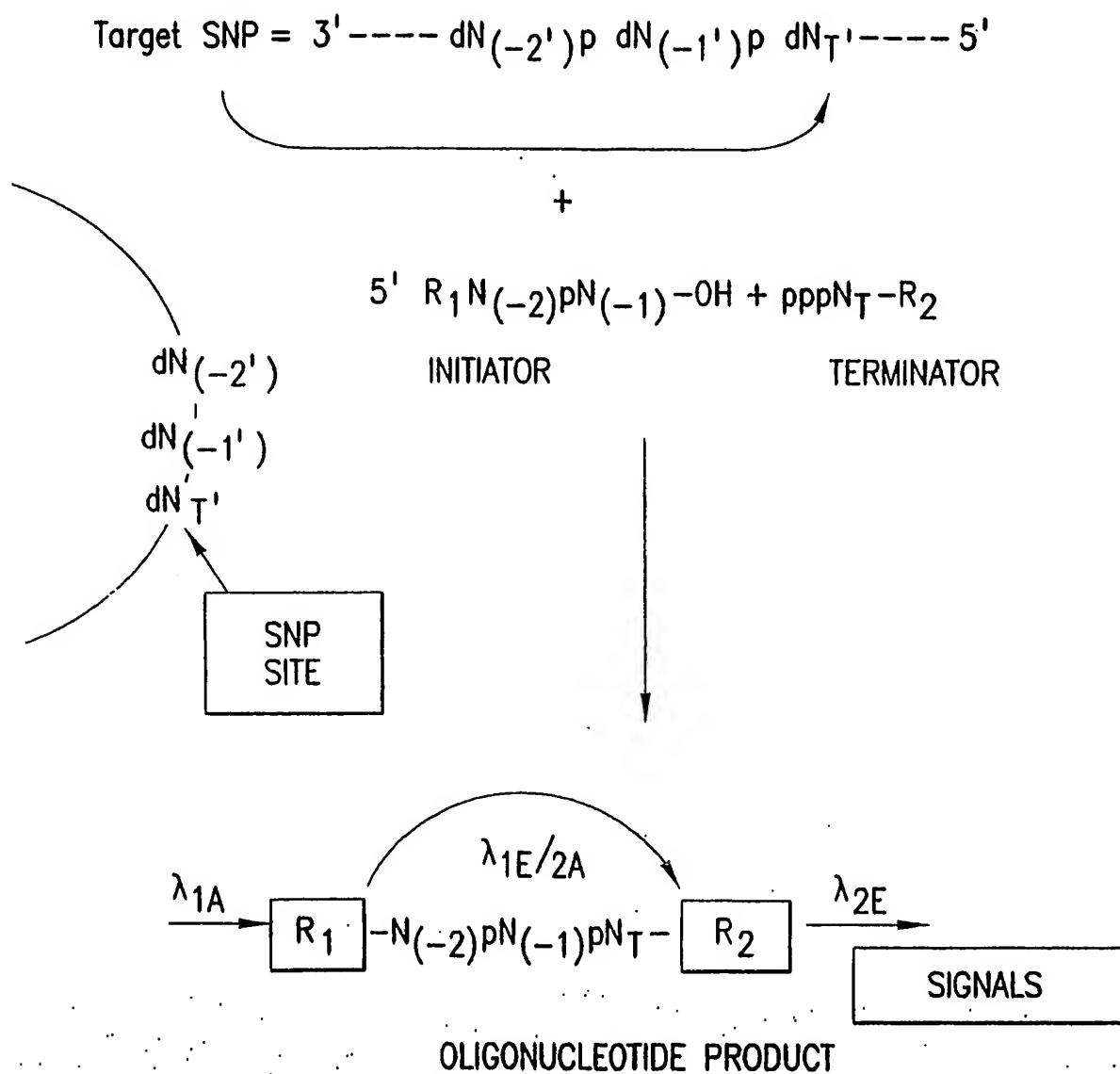


FIG. 14



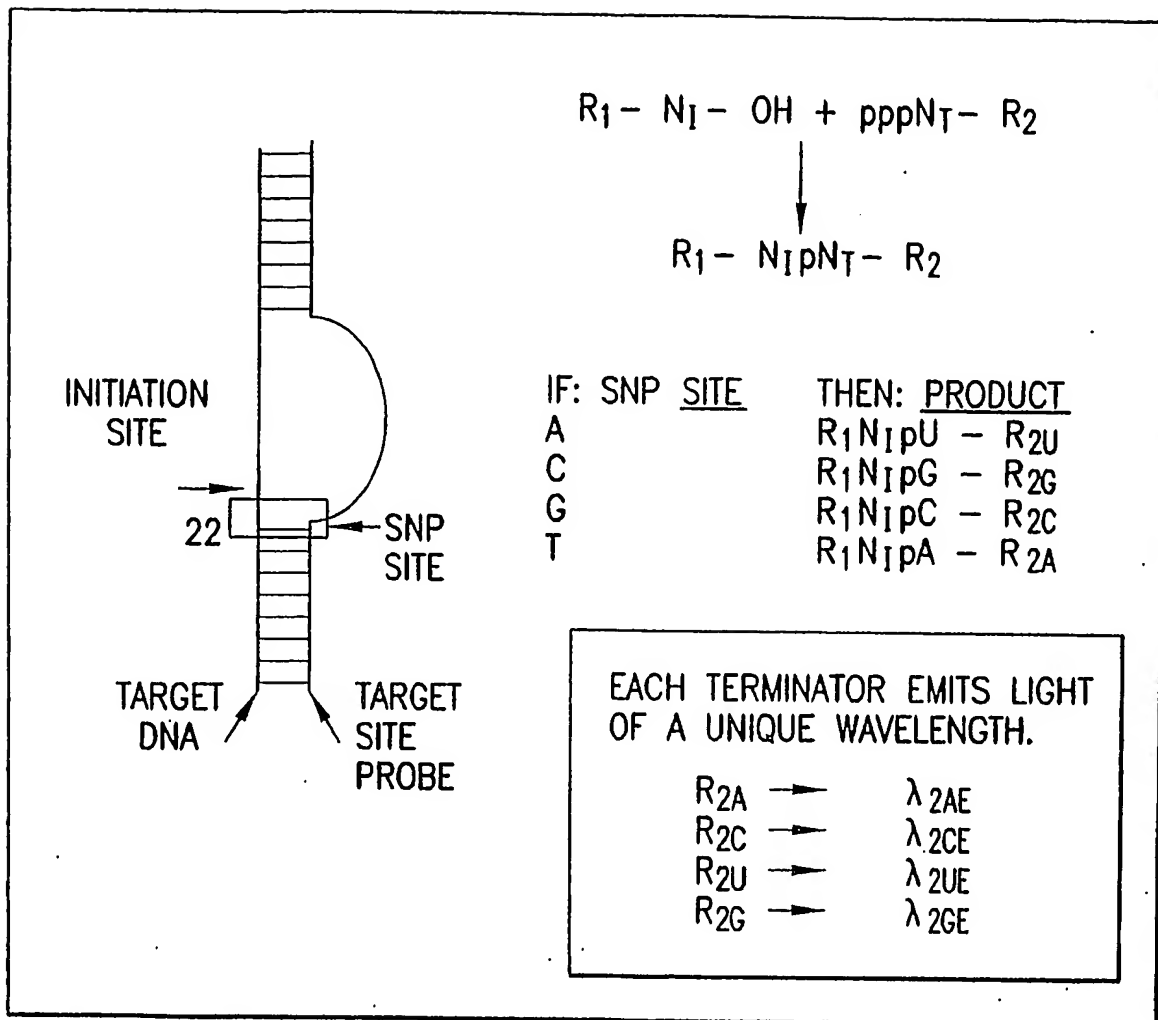


FIG. 16

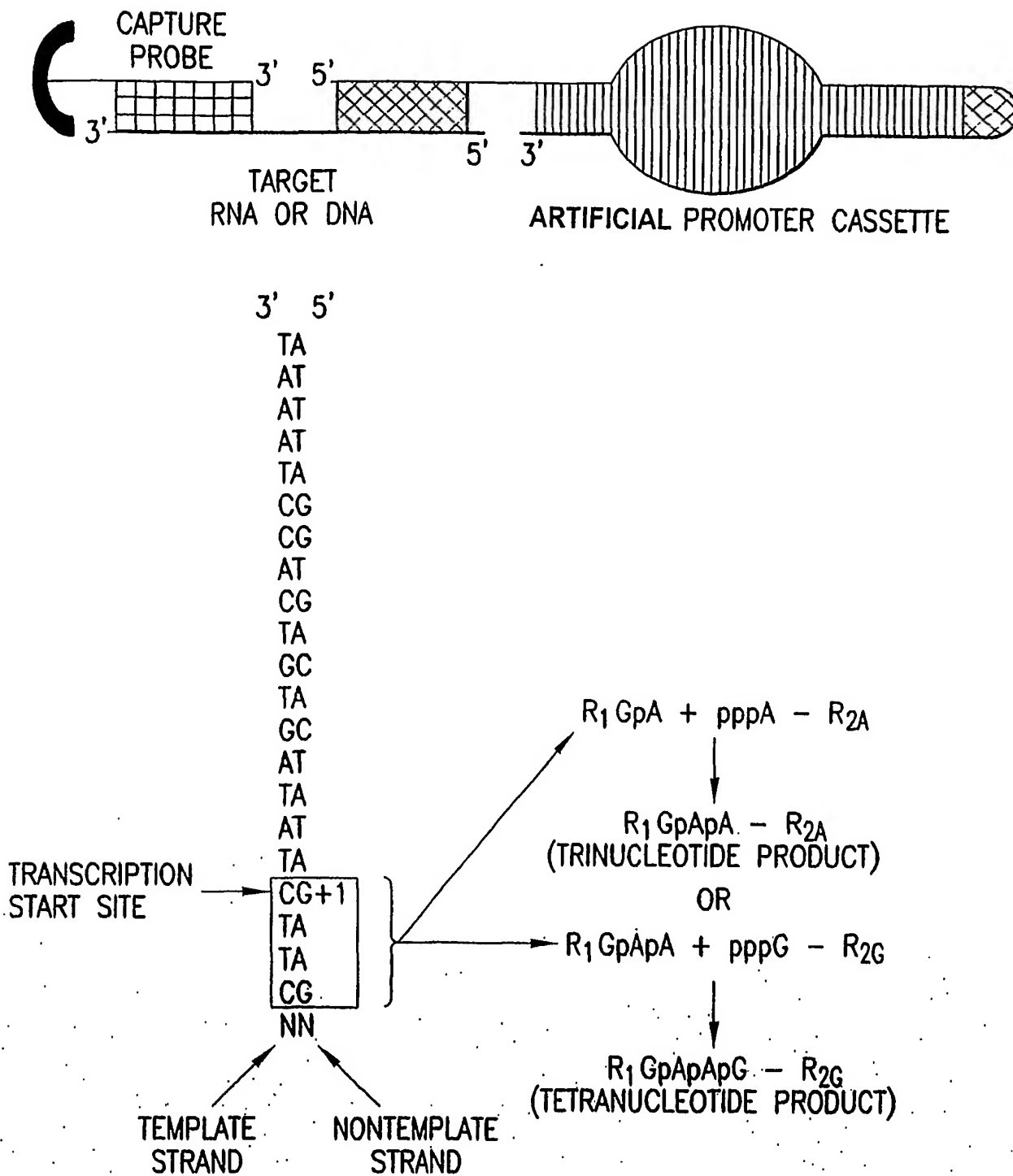


FIG. 17

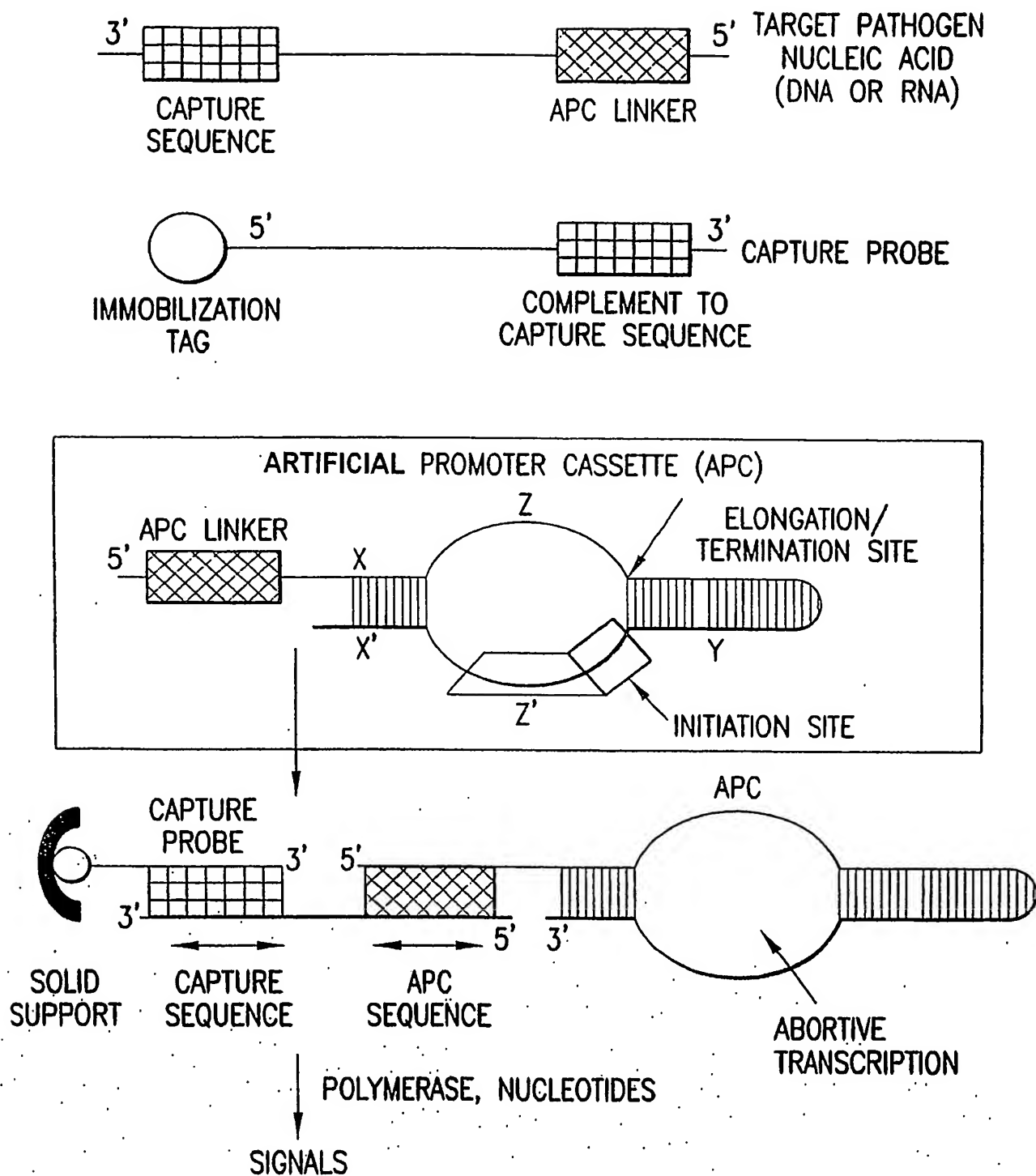


FIG. 18

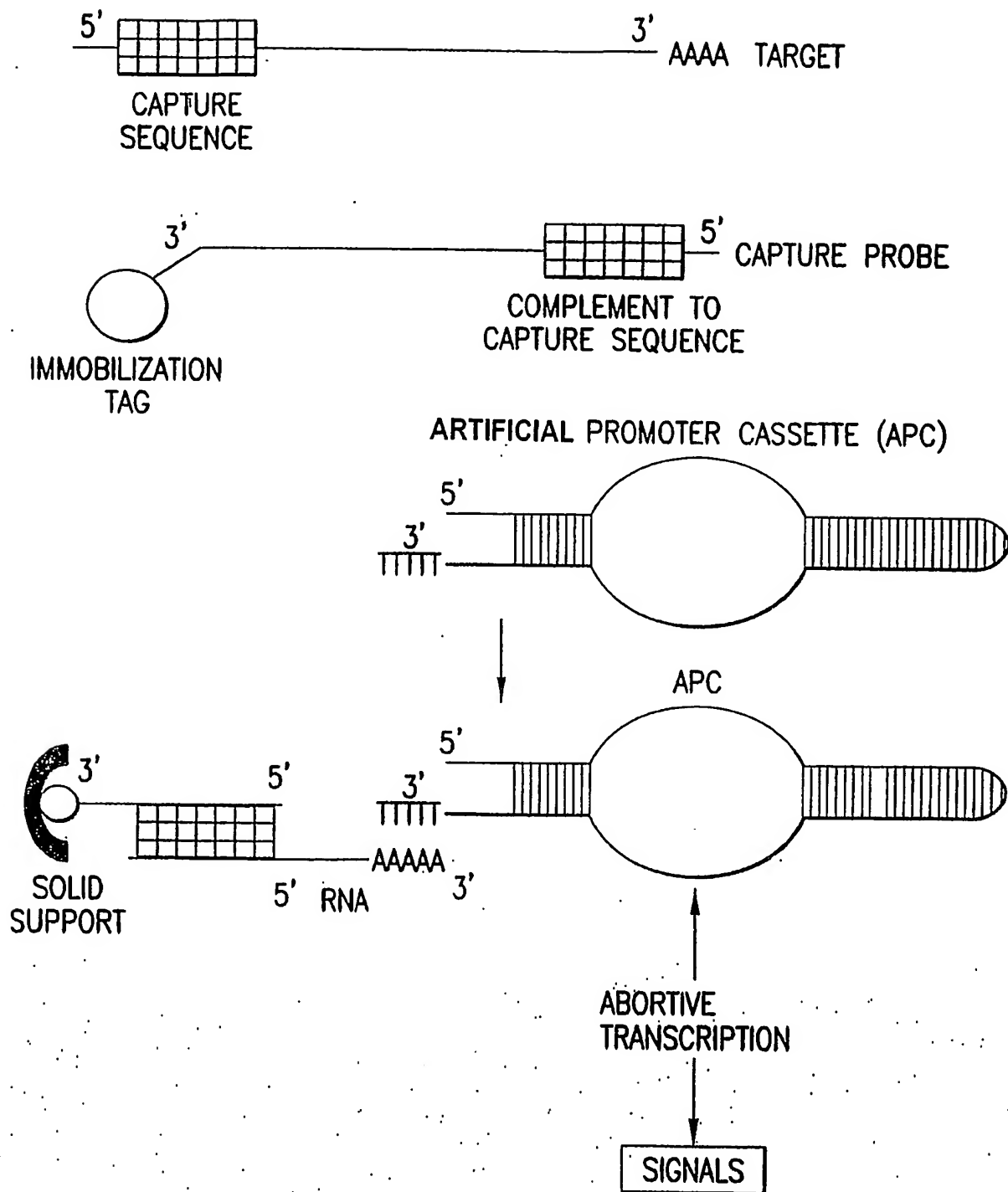


FIG. 19

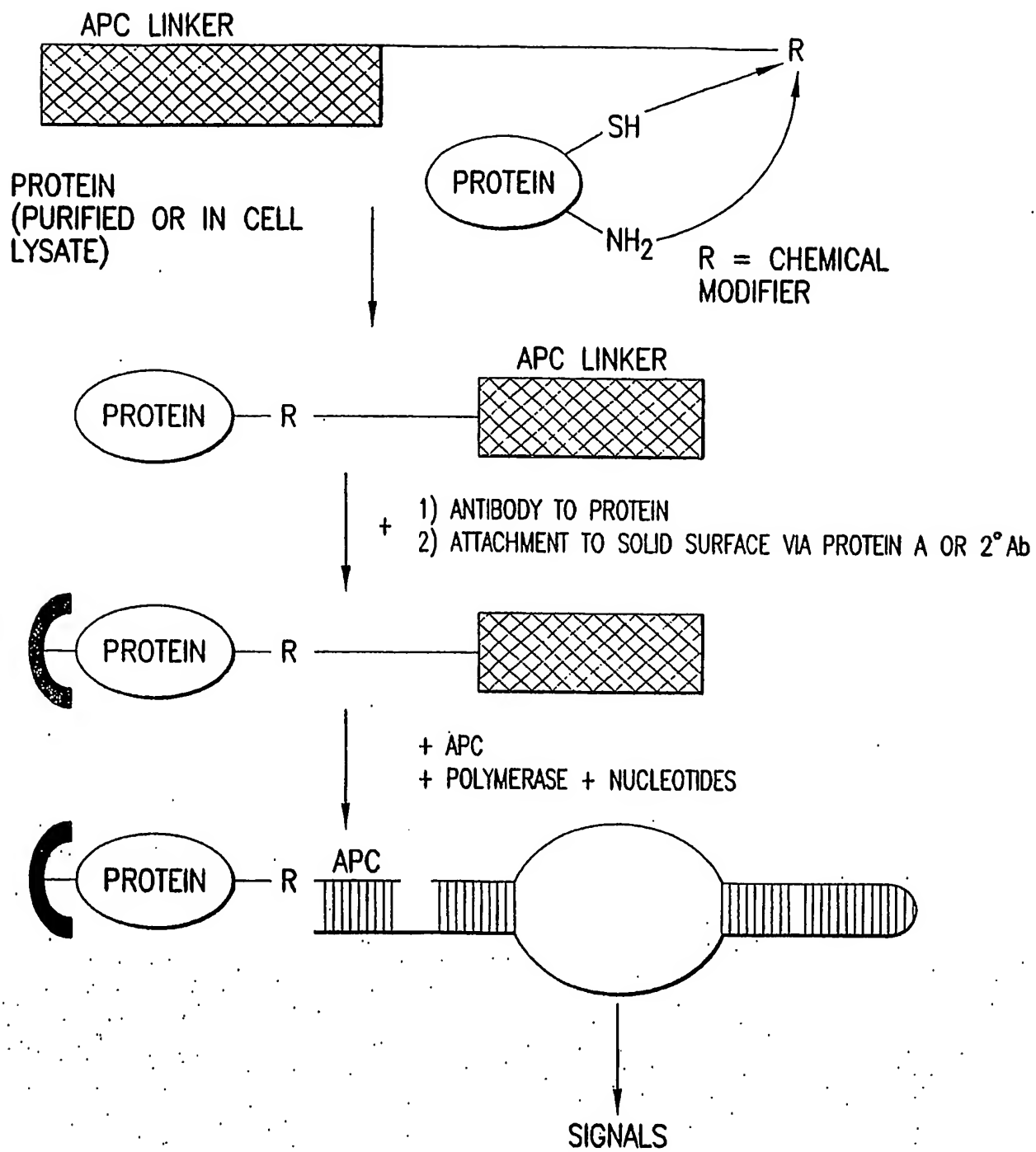


FIG. 20

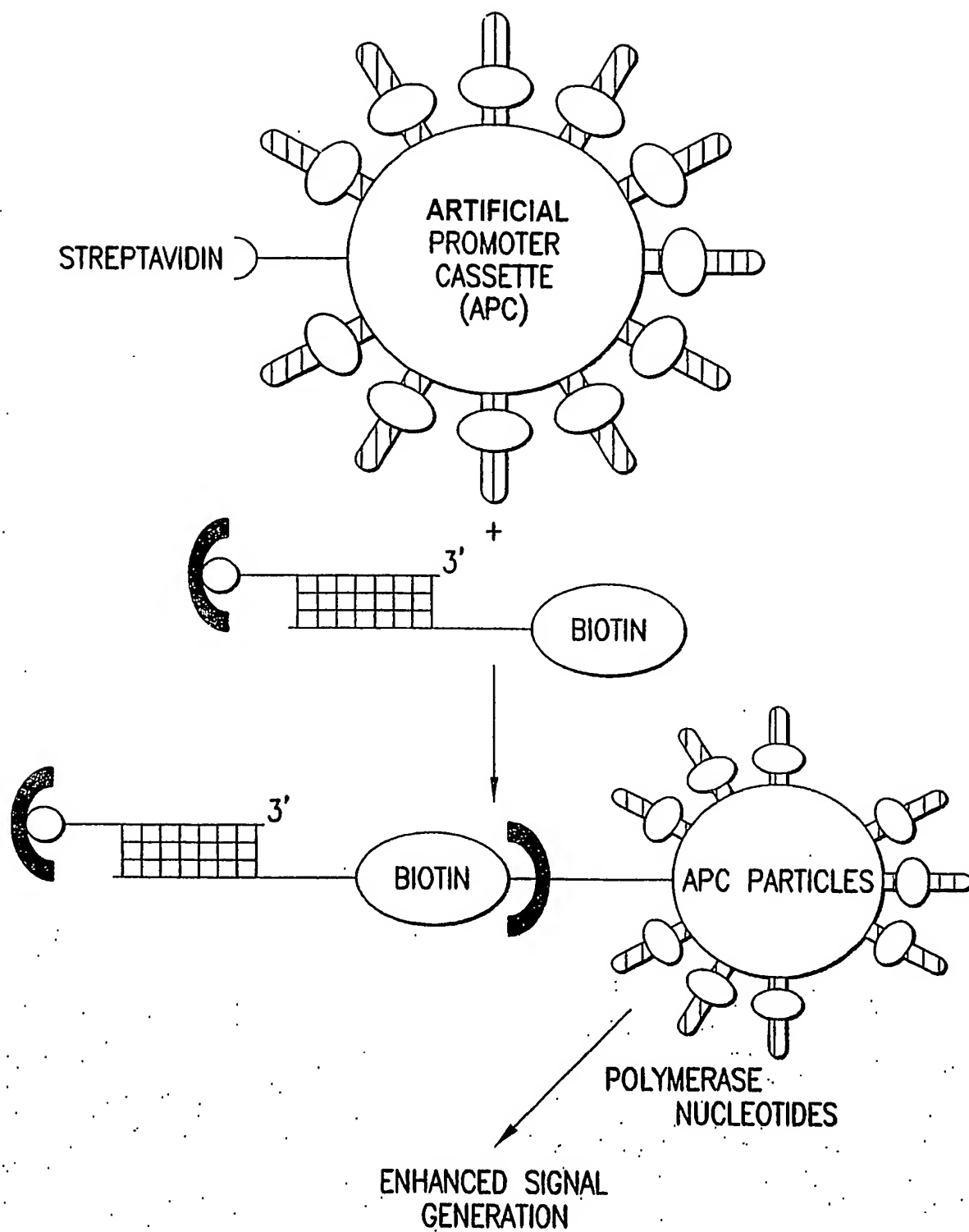


FIG. 21

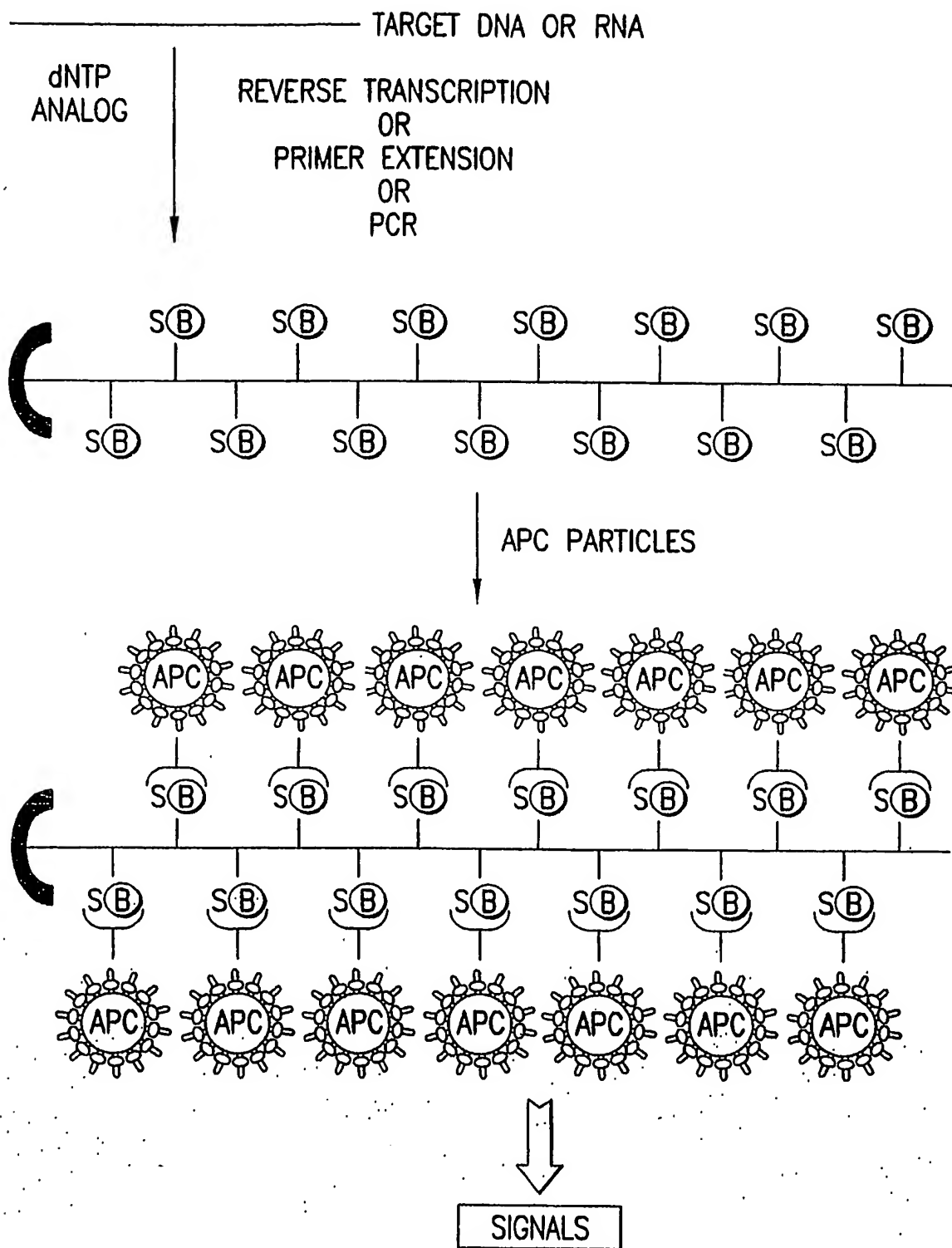


FIG. 22

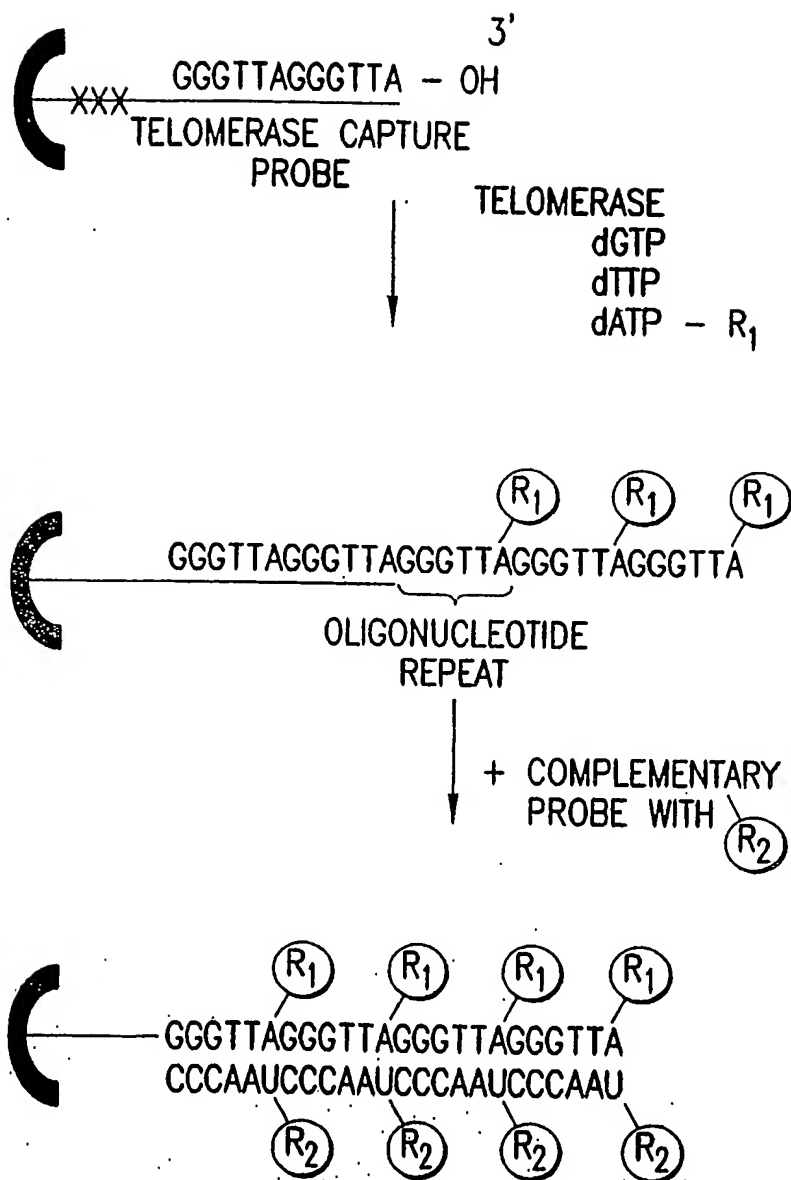


FIG. 23

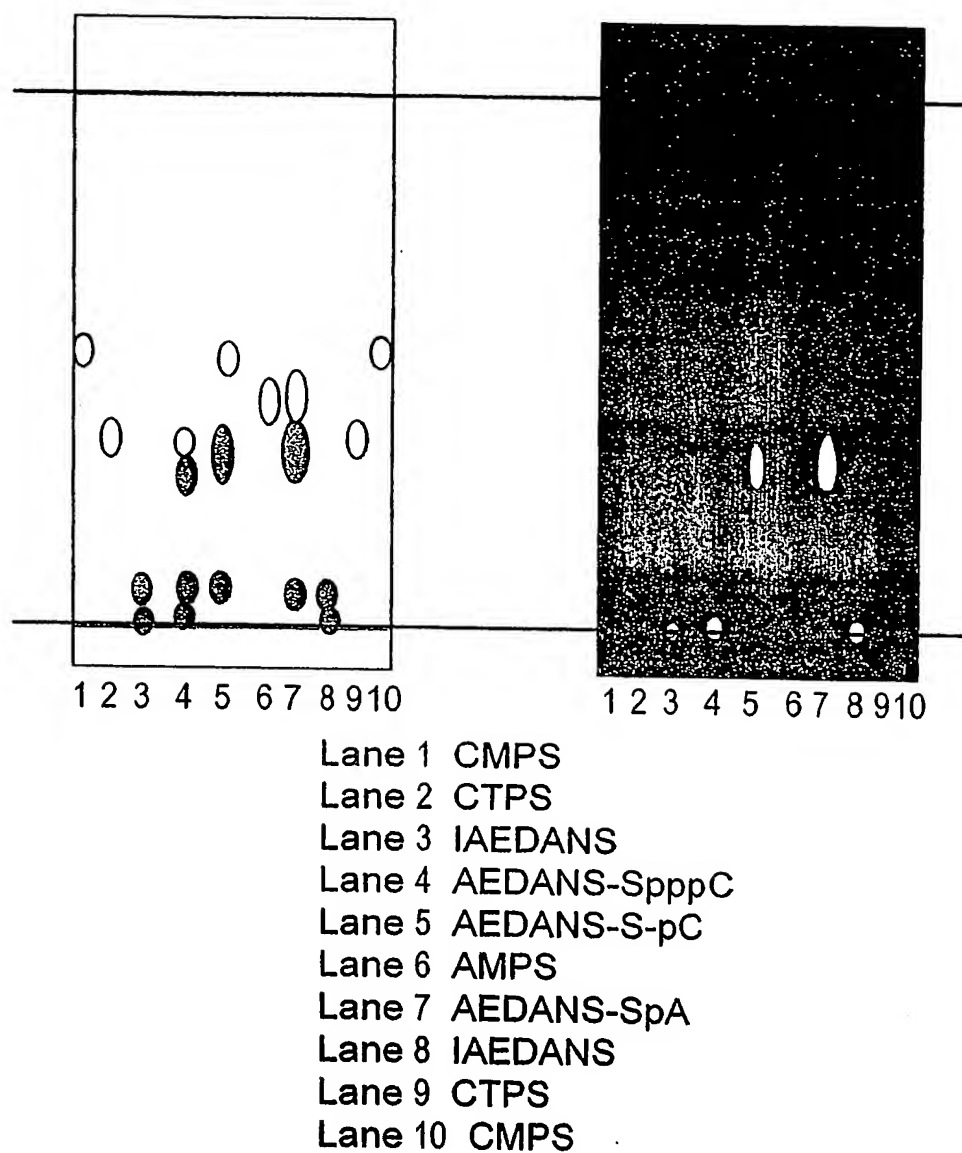


FIG. 24

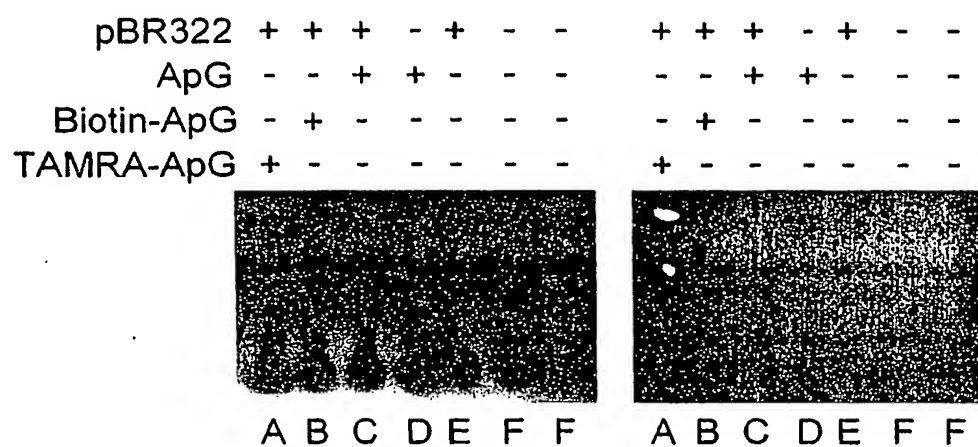


FIG. 25

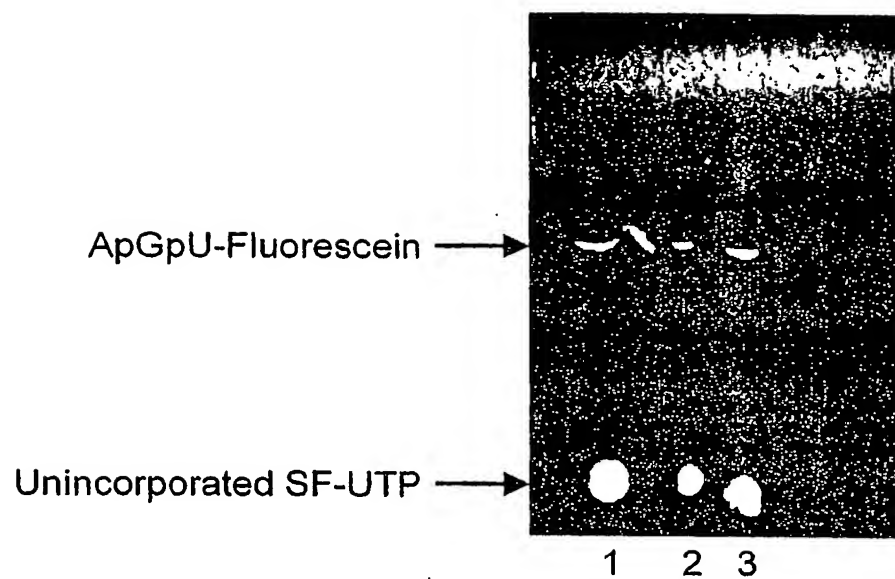


FIG. 26

GGTGTATGTTGGAATAAATATCGAATATAAATTTTGATCGAAATTATTCAGAAGCGGCCGGGCGCGGTGCCTC
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AGAGAGAGAGAAAAATTATTCAGAAGCAACTACATATTGTGTTTATTTTAACTGAGTAGGGCAAATAAATATA
TGTTTGCTGTAGGAACTTAGGAAATAATGAGCCACATTCATGTGATCATTCCAGAGGTAATATGTAGTTACCAT
TTTGGGAATATCTGCTAACATTTTTGCTCTTTTACTATCTTTAGCTTACTTGATATAGTTTATTTGTGATAAGAG
TTTTCAATTCCTCATTTTTGAACAGAGGTGTTTCTCCTCTCCCTACTCCTGTTTTGTGAGGGAGTTAGGGGAG
GATTTAAAAGTAATTAATACATGGGTAACTTAGCATCTCTAAAATTTGCCAACAGCTTGAACCCGGGAGTTTG
GCTTTGTAGTCCTACAATATCTTAGAAGAGACCTTATTTGTTTAAAAACAAAAAGGAAAAAGAAAAGTGGATAG
TTTTGACAATTTTTAATGGAG

FIG. 27B

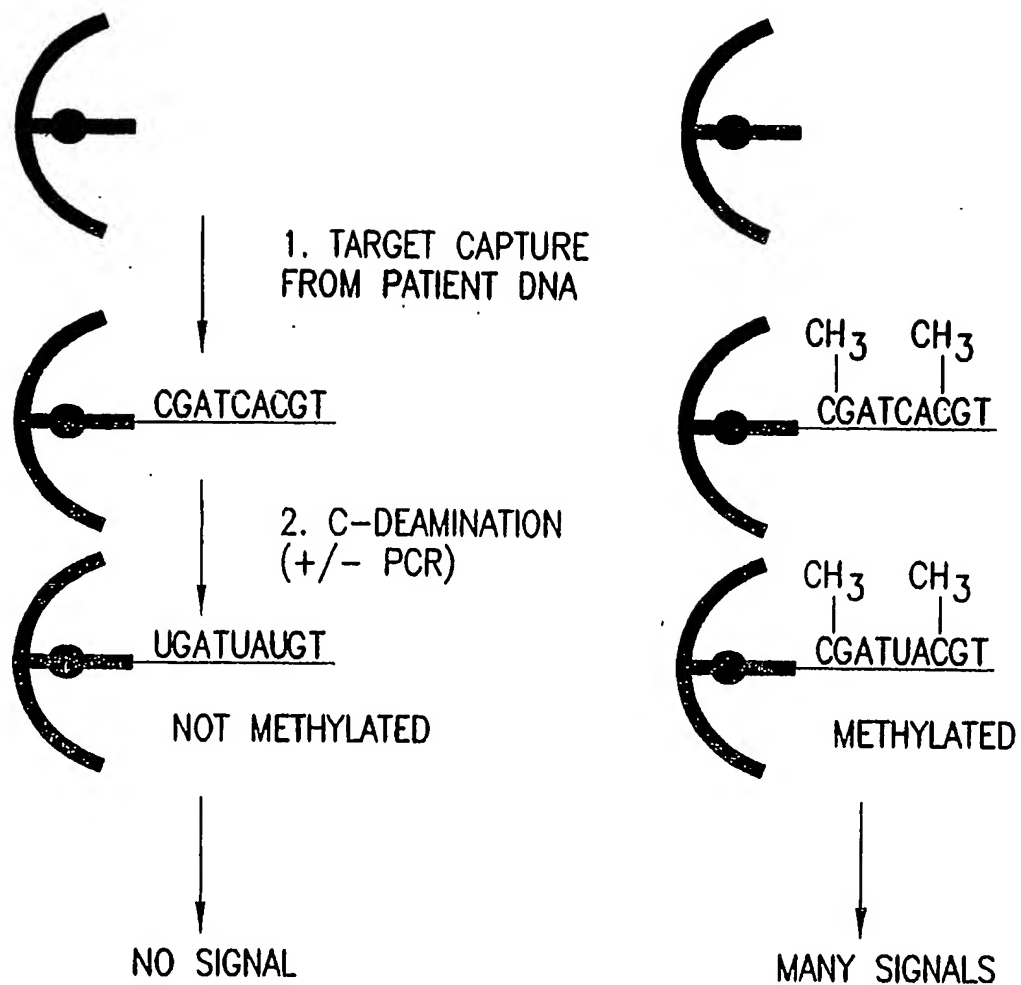


FIG. 28

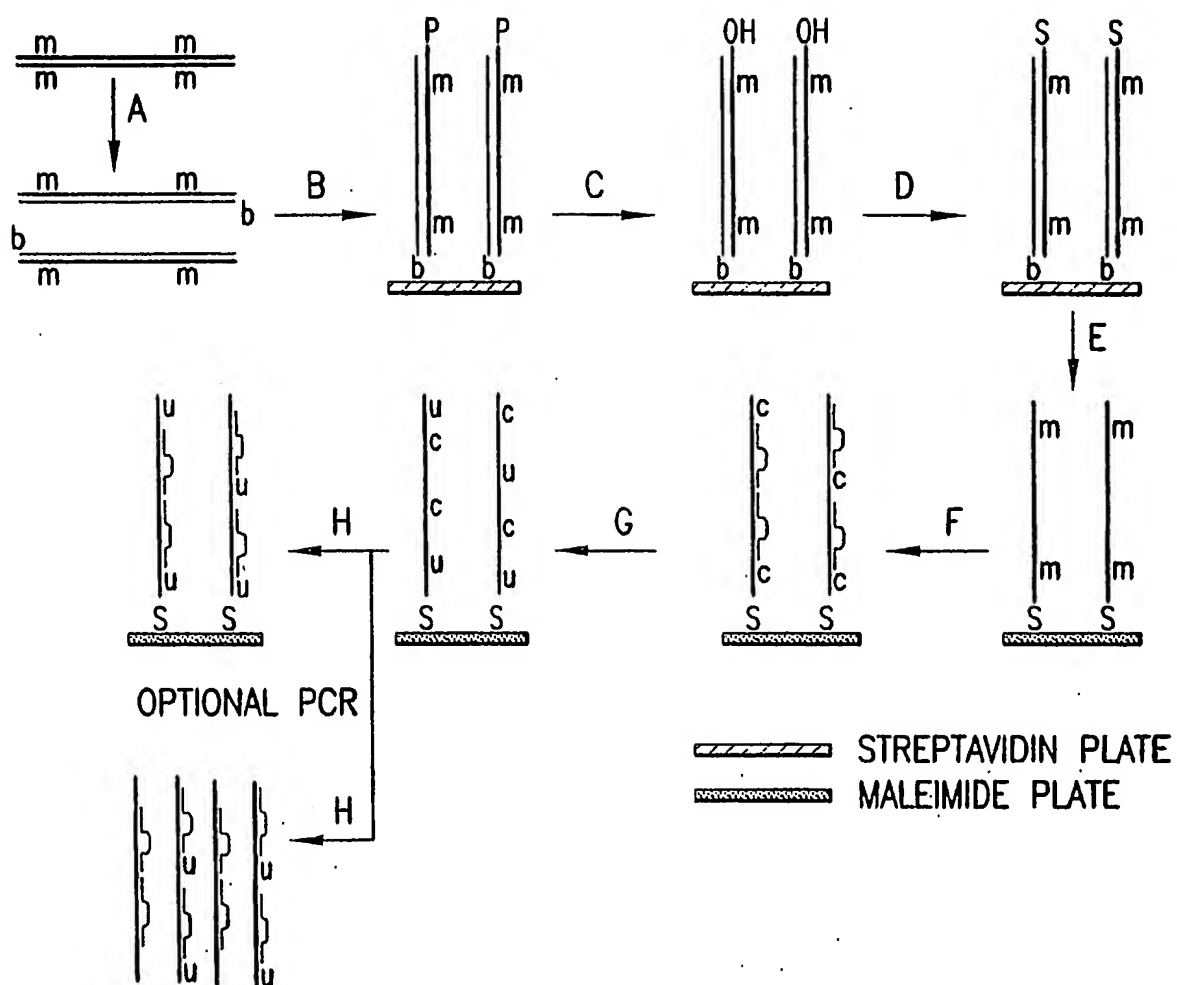


FIG. 29

poly[dG-dC]

...GCGCGCGCGCGC...

FIG. 30A

Bubble complex 1

+1
 |
 TATATTTAGCCC
 5' GGATACTTACAGCCAT TACTCCATTCCATCCCGGGTTCGTCC Non-template strand
 3' CCTATGAATGTCGGTACCTGTGCCGCTTATGAGGTAAGGTAGGGCCCAAGCAGG Template strand
 AA incorporate UTP
 AU incorporate ATP

FIG. 30B

Template strand

3' CCTATGAATGTCGGTACCTGTGCCGCTTATGAGGTAAGGTAGGGCCCAAGCAGG

FIG. 30C

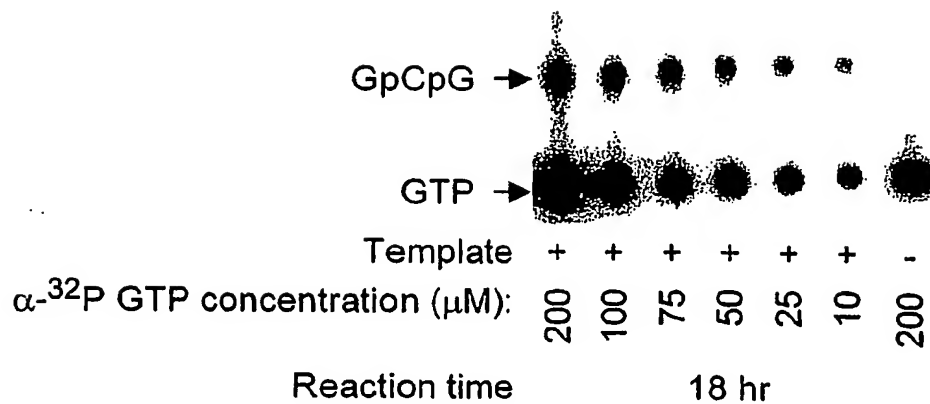


FIG. 31A

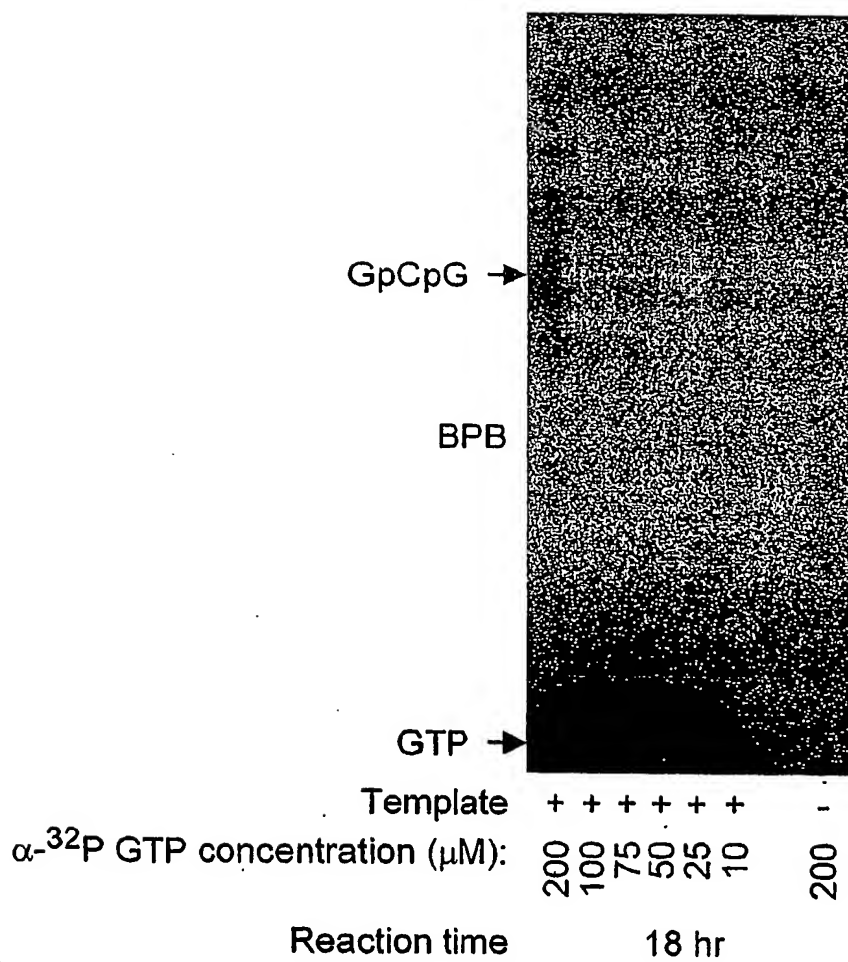


FIG. 31B

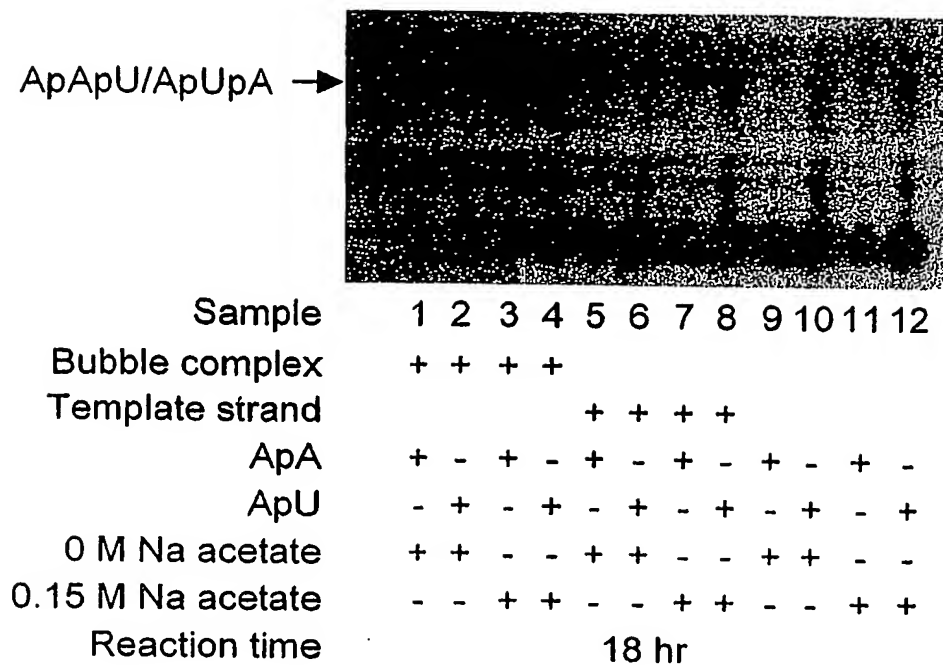


FIG. 32

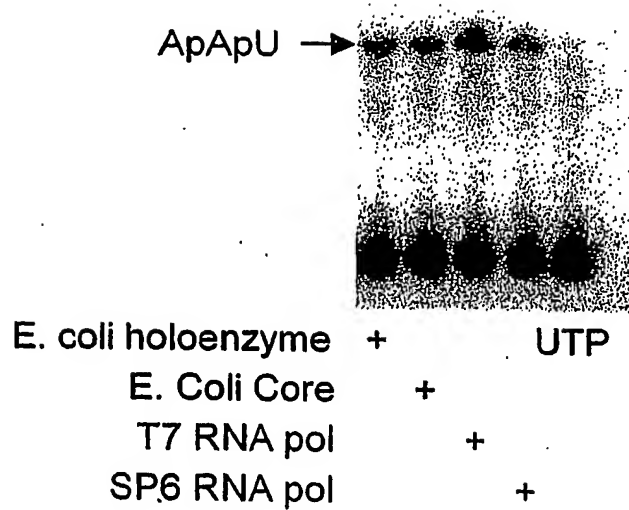


FIG. 33

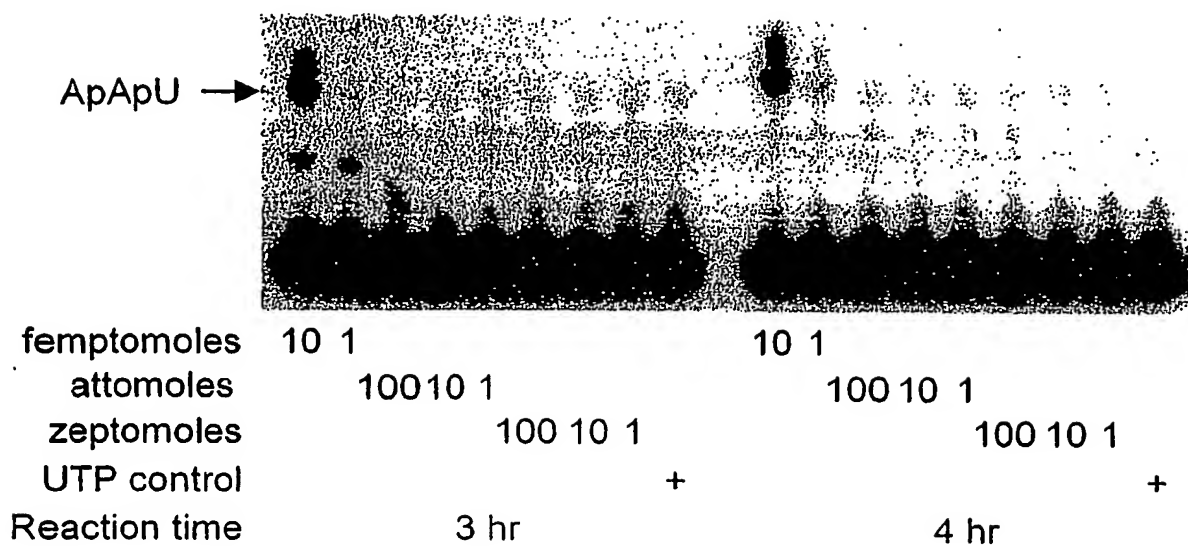


FIG. 34A

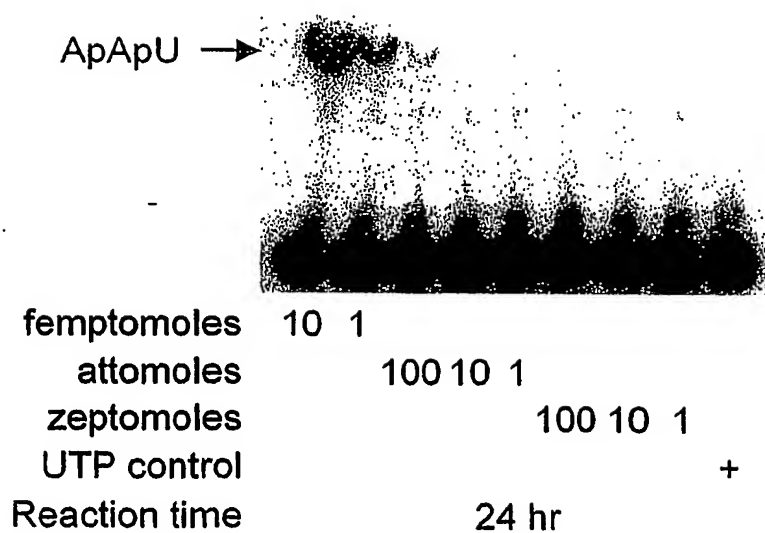


FIG. 34B

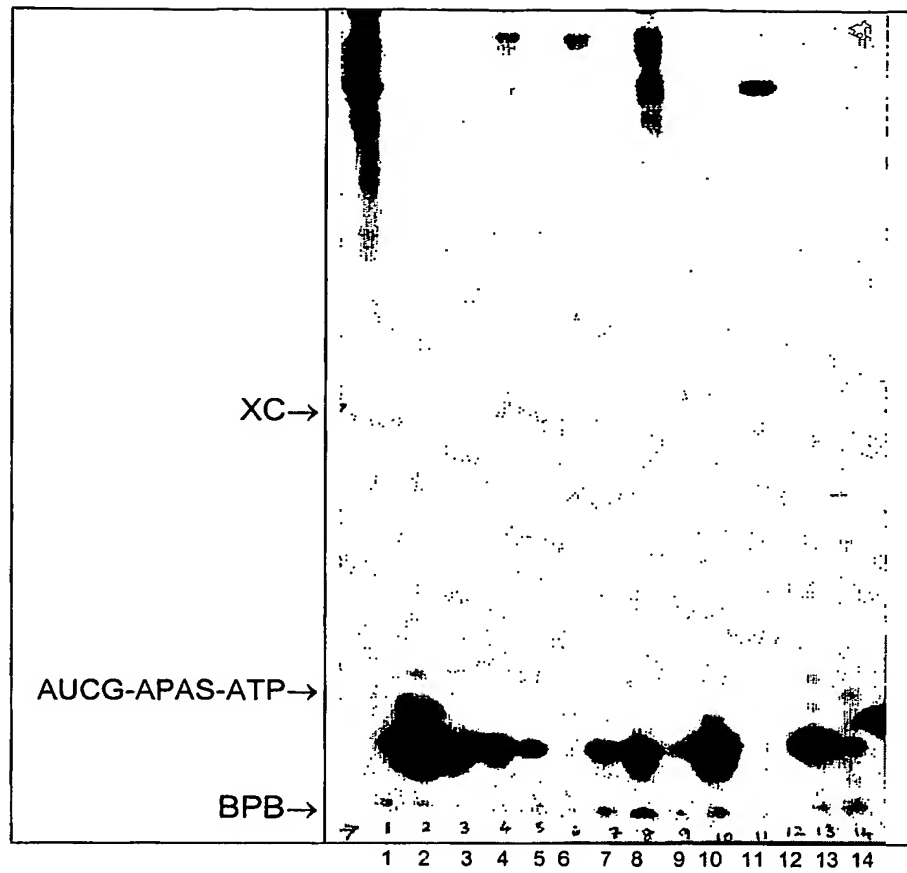


FIG. 35

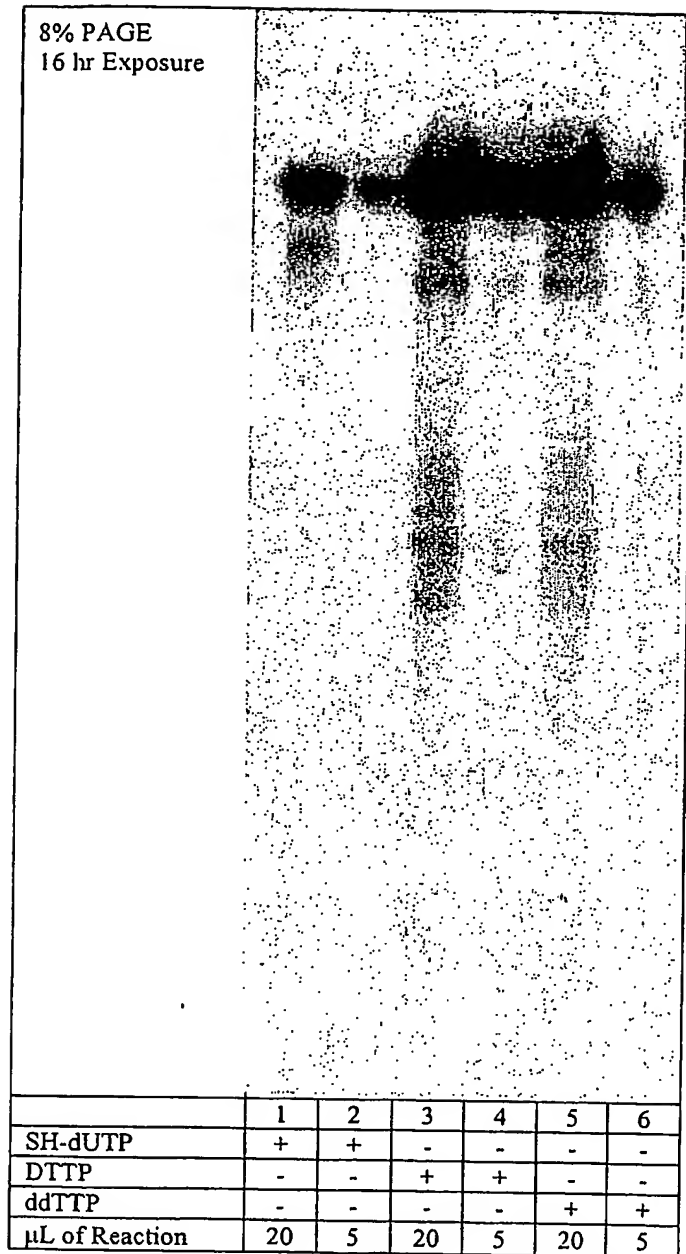
FIG. 37

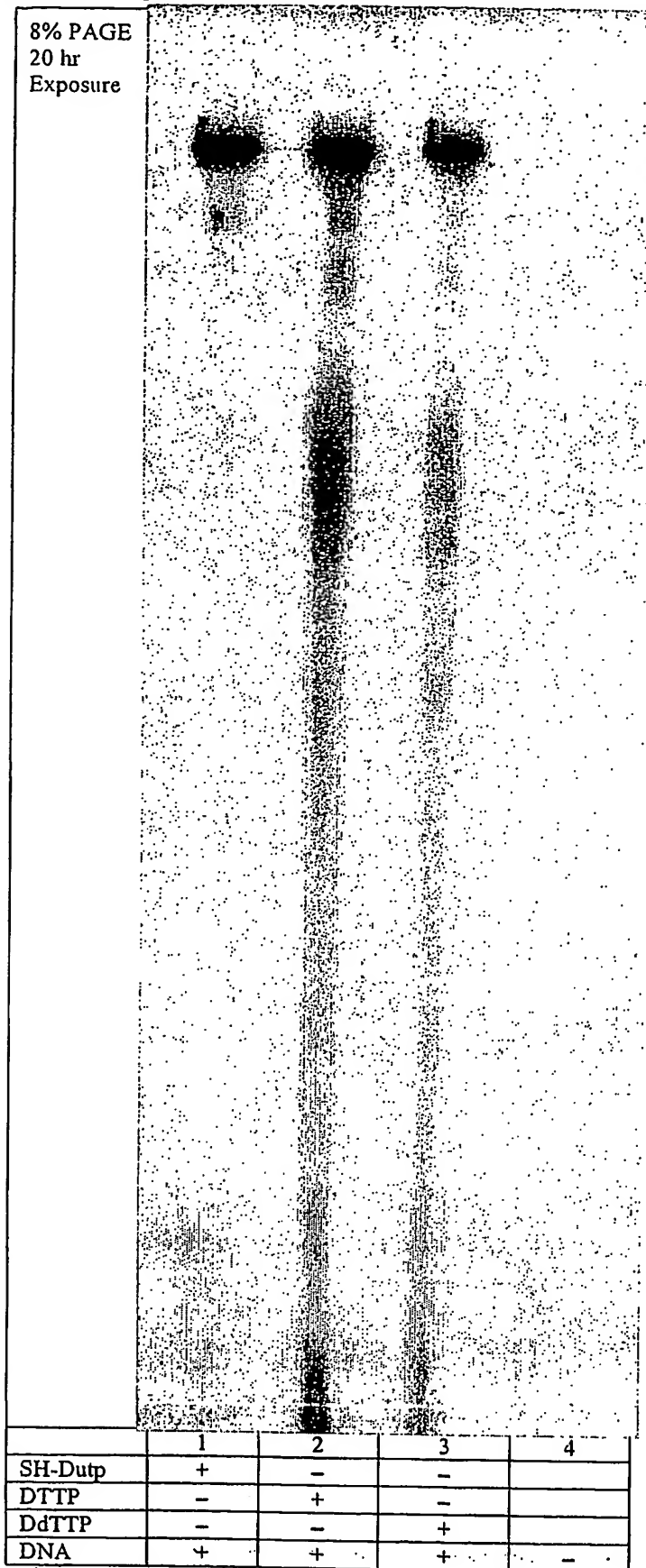
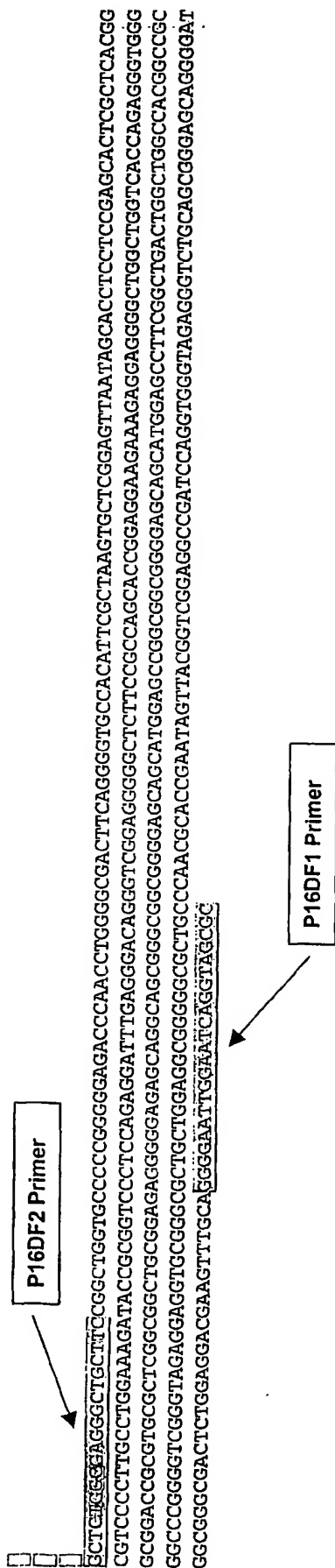
FIG. 38

FIG. 39

P16DF PCR



1st T after P16DF2 = 24mer
 1st TT after P16DF2 = 60mer
 1st TTT after P16DF2 = 169mer

FIG. 40A

FIG. 40B

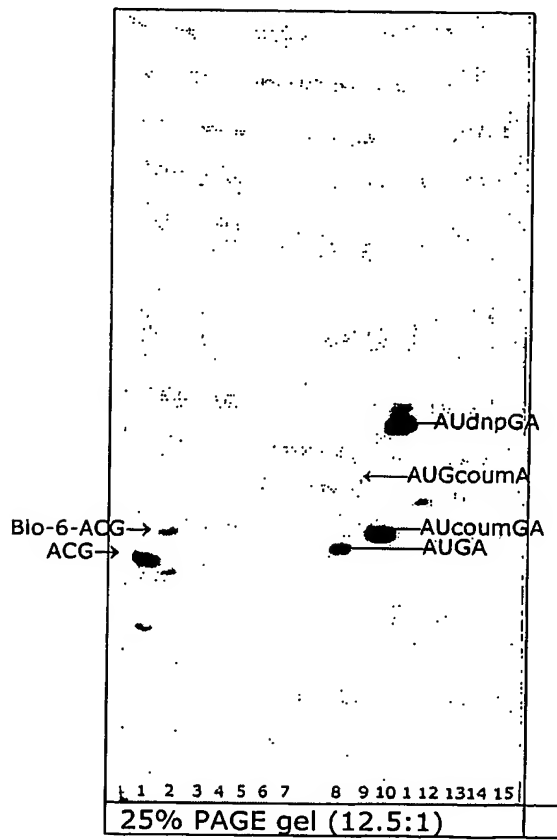
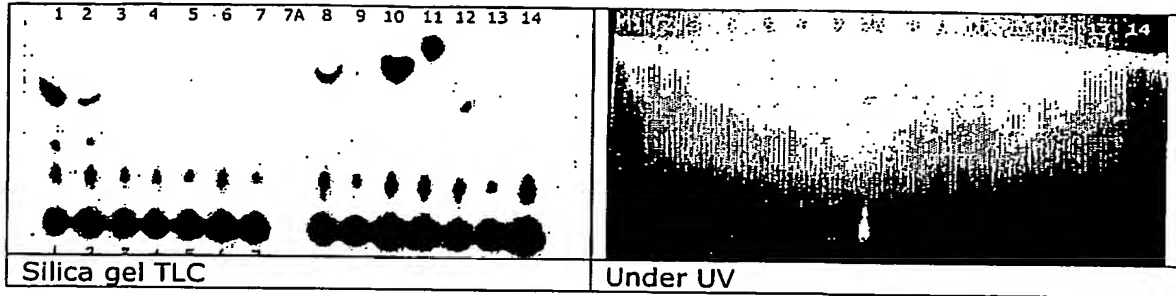


FIG. 40C

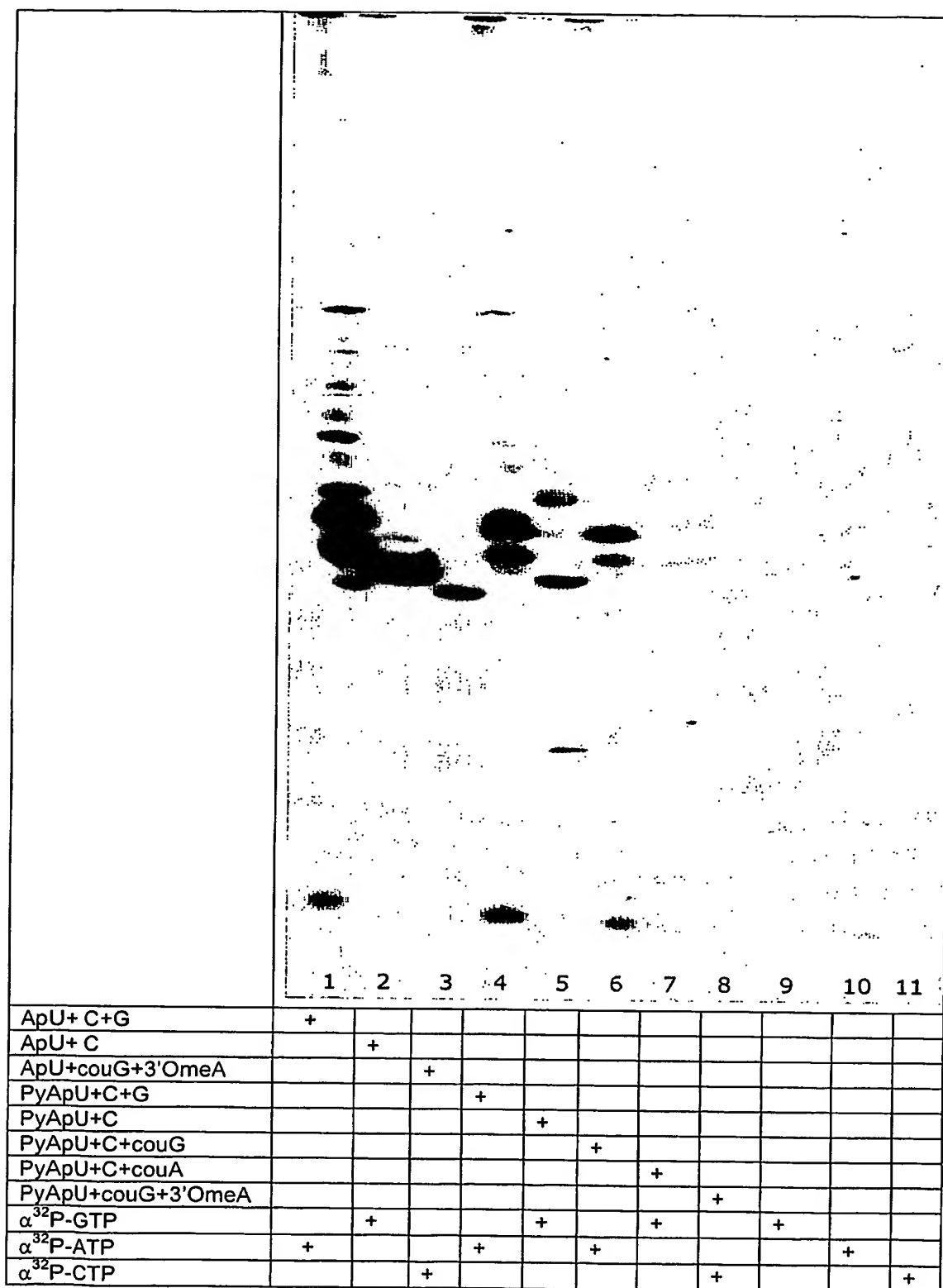


FIG. 41A

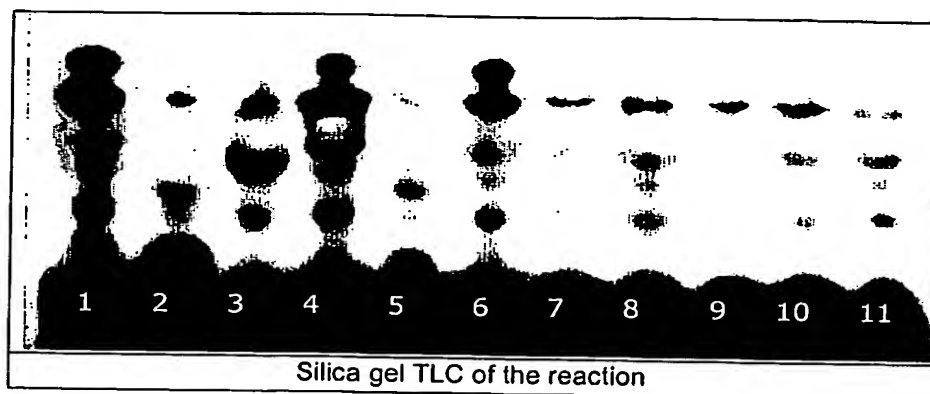


FIG. 41B

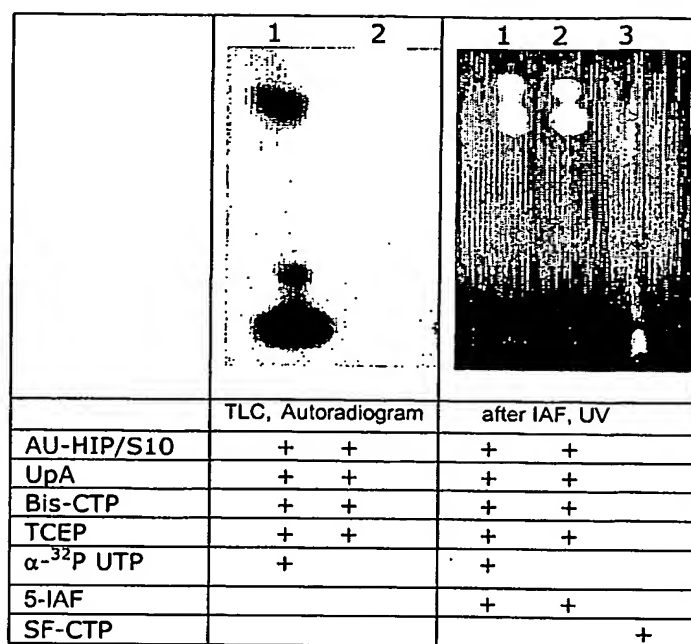
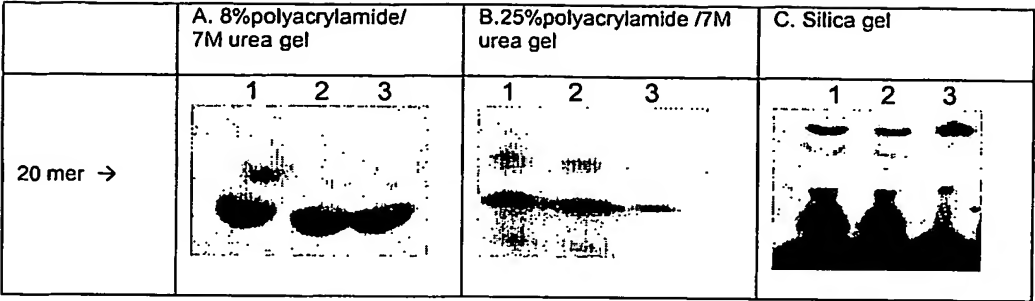


FIG. 42

FIG. 43



-1-

SEQUENCE LISTING

<110> Ribomed Biotechnologies, Inc.
Hanna, Michelle M.

<120> Molecular Detection Systems Utilizing Reiterative Oligonucleotide
Synthesis

<130> 2072.001PC05

<150> US 10/425,037

<151> 2003-04-29

<150> PCT/US02/34419

<151> 2002-10-29

<150> US 09/984,664

<151> 2001-10-30

<160> 3

<170> PatentIn version 3.2

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aggtagcgc 549